Business and Digital Transformation

In the Age of Hyperautomation

Coloring Outside the Lines

By Dan Morris and Keith Leust

What Others Are Saying About This Book

Jim Sinur, CEO @ Fleuresque

"Organizations that want to get ahead of transformational change will want this practical book. There are a significant number of self-help frameworks. I was particularly attracted to the transformational self-assessment, position descriptions, and the detailed guidance questions that organizations should be asking themselves."

George Vukotich, Ph.D, Founding Director - Center for Research in Innovation and Smart Cities, University of Wisconsin-Parkside

"In Business and Digital Transformation, Keith Leust and Dan Morris bring their years of experience and the quality of work into a comprehensive piece. It takes the practitioner both new and experienced through the processes needed to make change successful. With the increasingly rapid pace of change not only in technology but also in society and the workplace, the practitioner needs to know what to do and when. The tools included in this book bring together a process for making things happen and getting things done. Their years of work, your benefit in the workplace."

Kevin Anderson, Senior Organizational Development Consultant, and author of *"Organization Design Made Easy"*

"Transformations have become a primary method of reinventing businesses and keeping them relevant. This book has winning, practical approaches for key aspects of designing and carrying transformations including the strategy, forming execution teams, and landing on success metrics."

Executive Summary

"Past success is no guarantee of future success."

This has never been truer than it is today. The need to change to keep up with your competition's innovation, newly released automation capabilities, Advanced Technology, and rapidly changing customer expectations are causing companies to rethink their fundamental business and operating models – often designed and built in a very different and much more simplistic time.

The last few years have seen both great and sad changes in society, by globalization and in business. Companies must deal with constant significant change – maybe more than ever before. Today as the Pandemic is on the way to becoming a sad part of history, we are faced with a revolution in automation and Advanced Technologies – a revolution that is difficult to keep up with but is heralding tremendous advances in all fields of human activity.

But with this advancement have come constant business operation disruptions and a need for change and the flexibility that few individuals have the skills and experience to navigate in this 'new normal', nor are most companies able to support. The purpose of this book is to provide a learning and working platform that provides the context as well as approaches to equip business professionals who are part of their organization's Transformation efforts, to become successful. We will explore how the discipline of Business Transformation is evolving and how the relatively new discipline of Hyperautomation and its counterpart, Advanced Technologies, are both poised to change the world we live in and - change it fast.

Reframing An Organizations Future

So, the question becomes, "*How can you prepare to leverage these advances to gain market share?*" This is the key issue. The time of a focus almost to the exclusion of other considerations, on cost reduction, while still important, is temporarily coming to an end. As we tell clients, the company that invests in transformation capabilities will be able to adjust and gain market relevance – and with that, market share. That market share gain will come at least

partially by taking customers from the competition. They will stay in business, constantly redefine what is possible and grow. The company that is too focused on cost reduction will continue to become more and more cost efficient but, in the end, if it does not invest sufficiently in transformation, it will simply not keep up and it will lose relevancy and consequently, market share. That starts a downward spiral which, if not stopped, will have an inevitable end.

We are driven to leverage our experiences as Business Transformation practice leaders of major consulting firms to help companies prepare and then change their perspectives and capabilities to embrace the revolution in automation and Advanced Technologies which is starting to have a profound effect on all businesses and on societies all over the globe.

But who are we to advise anyone on anything? Both of the authors of this book are senior executives who have started multiple consulting practices for major consultancies, as well as held leadership positions in a variety of organizations. As a result, we have walked in your shoes and understand the challenges of successfully transforming organizations. We have delivered consistently successful Business and Digital Transformations – shredding the 70% failure rate that is common with transformation efforts.

Part of building this success rate has been both innovation in the Business Process Management (BPM) approach and embracing Hyperautomation (e.g., iBPM, RPA, CC, and AI) and Advanced Technologies (e.g., holographic and 3D imaging, 3D printing, IoT and robotics). All of the concepts, techniques, innovations, and approaches are incorporated throughout this book.

The Next Disruption is Massive Innovation

Today, everyone is moving into a period of intense innovation. Many companies have licensed components of Hyperautomation platforms and considerable isolated progress is being made with iBPM, RPA, and other members of the Hyperautomation family and in mixing these technologies and combining them with advances in technologies to make great strides. An example is what the auto manufacturers are doing with new sensor technology, new battery technology, and Artificial Intelligence coupled with cognitive computing and voice recognition in creating fully autonomous vehicles. And progress is now so far along on autonomous vehicles that we see it advertised on TV. This is just one of the disruptions occurring as transformation accelerates. Given that we will only see the innovation that companies want us to see when it is working, imagine what is not being shown.

This is the creativity that is driving change today and a need for companies to rethink their business model and their operation. This is also a time for experimentation and creating an ability to leap frog your competition as it innovates. An older example of this point is the insurance industry where claims submission was totally reinvented when cell phones became auto accident claims submission devices – take pictures with your phone and answer several

questions in an app and the claim is submitted. After the first company released this disruptive capability, all other competing insurance companies had to rush to provide the same capability.

Helping to prepare you to move into this innovative, fast changing new world is one of our goals. This move is costly, invasive, and strategic, but it can be made affordable. Another goal is to acquaint you with new approaches that make a difference in your company's transformation as it embraces this new Hyperautomation-driven operating model. These approaches and their techniques include approaching these efforts through the perspectives of four collaborating views of the business which include Strategic, Operational, Organizational, and Digital Transformation, and building a core team of transformation professionals who bring together six unique disciplines to make certain all aspects of the business operation are properly considered and to integrate them into the new and constantly evolving design of your organization. These disciplines include Transformation Architect, Business Architect, Experience Architect, Process Architect, Organizational Architect, and Digital/Technology Architect. We will delve into each in Chapter 7: Architects of Transformation.

While all of these innovations are critical for both consistent and sustained success, the initial requirement may be the most important. This is a recognition that all transformation must start with a changed corporate vision and strategy that determines the business, IT, and other capabilities that the company must have in place as it builds a new operation.

Welcome to the Community of Business Transformation Professionals

We have asked for your contact information to download the book because we will be inviting you to participate in a "Hyper Transformation" community with round table sessions, webinars, blogs, articles, and white papers. These complimentary activities are intended to help everyone stay current in the changing world we are all moving into.

Forward

This book is for every business or technical manager in any industry. The fact is that sooner rather than later your organization will engage in Business and Digital Transformation - if - it has not already. But both have been now redefined by the ever-accelerating Hyperautomation and hyper technology era that we are witnessing.

Welcome To a Journey to the Future

We begin with rethinking what transformation is all about providing a template to go beyond the current constrained thinking and approaches to Business Transformation. Here we outline a Continuum of Transformation which begins with the traditional view on change and incremental improvement, through the current approaches to Business Transformation which focus on navigating an organization from today's current-state to a new future-state.

Unfortunately, this old approach is seriously outdated and by definition, transformation will never stop. As a result, we have defined Continuous Business Transformation as the next step in the Transformation journey. In effect, building the capability of Continuously Transforming your organization. This next step recognizes change and disruption as a strategic asset and defines how to build this differentiating capability. Finally, we explore Hyper Transformation which is the next step in the continuum. In Hyper Transformation, the underlying business strategy is reliant on emerging digital technology, and the latest automation to re-image your business and operating models so that you can disrupt the market and make your organization the leader that will be hard to follow. A vital aspect of Transformation and leveraging technology is enabling your people to adapt to our accelerating and ever disruptive business environment. Having great technology to enable and differentiate your organization is great, but it also requires attention to enabling your people to adapt quicker than your competition.

Welcome to tomorrow and the art of the possible.

This is the evolving discipline of Business Transformation.

How Digital Just Accelerated

This acceleration of automation and other digital capabilities has dramatically changed how businesses evolve, the approach to thinking about business and operating models, how organizations define differentiation in their markets, and how fast you need to move to stay ahead of the competition. This new requirement for increased speed is also an advantage for small and medium-sized companies over large slow-moving giants. What will happen is not yet written but it will be interesting. Will the mega giant companies recognize their need to dramatically rethink how they operate, or will they rely on their financial reserves and wait things out in the hope to win the day? Will the more nimble but less well-funded companies take market share? While that is unknown, we do know that what traditional managers have become accustomed to will be replaced in the coming years with Hyperautomation and Advanced Technology which will cause business to evolve and accelerate back-office processing dramatically. We have seen just the tip of the iceberg in 2020 as organizations struggled to find firm footing with the disruption caused by the global pandemic. Not only were organizations caught unprepared with the magnitude of the disruption but were forced to dramatically rethink their cost profiles which in 2021 is resulting in an acceleration of both back and front office automation.

Consider this. Since 1955 only 52 companies remain on the Fortune 500. The few organizations that survive and continue to thrive recognize the vital importance of creative disruption, adaptation, leveraging new technologies, and the ability to constantly evolve and transform. Over the last decade, since 2010, technology companies like GE and Hewlett-Packard were replaced by Apple and Amazon. JPMorgan Chase has been replaced by Healthcare and Pharma companies, United Health, McKesson, CVS, and AmerisourceBergen. Furthermore since 2010 seven of the thirty companies in the DOW Index are no longer part of this exclusive group. Imagine, in just a decade almost 25% of the biggest companies have been dropped and replaced. It is expected that this turnover will accelerate in this decade largely a result of organizations' inability to adapt to change and lack of ability to transform themselves fast enough to remain relevant.

The past has brought us far, but the future and automation, as well as the opportunities that are being created with new digital capabilities, will take us to places we can only dream of. Consider the evolution of the cell phone. It started as a phone, now with over 50 sensors it can do everything from take photos to monitor heart rate. We can't today imagine what will be next.

We are just at the start of that growth and the opportunities it will provide for the innovative.

What Your Organization Needs to do Now

But this is not a book about the future and what might be. This is a book about the decisions and actions that companies need to do NOW. It talks about today and the impact that Hyperautomation and Advanced Technology is having and how companies need to leverage these changes to stay or become leaders in their industries. And, of course, that means reconsidering tomorrow and the next year to several years and how you want to evolve the company – thus the title of this book "Business and Digital Transformation in the Age of Hyperautomation".

The real challenge is what to do with the investment of the past. We all have legacy automation technology, production technology, business processes, and generally poorly or at least narrowly trained staff. All that will need to change as the operation now needs to change – if you want to remain competitive.

But hold it! This is not the message you are likely to get from others. This is probably not a comfortable prospect. This, however, is our reality. Just take a little time to look around and find out about what is going on with automation capability and what is happening with Advanced Technology and think how it will change society and what that will mean to your business. Look at timing and how long it will take the company to change as it responds to customer and competitor change. That is the fundamental message of the book – getting ready for the business environment that is coming.

Business Transformation

This book is not a technical book on how to build applications, or how to use Robotic Process Automation (RPA) or Artificial Intelligence (AI). It is not about how to innovate with Advanced Technology like Virtual Reality (VR) or robotics. It is not a technical book!

This is a Business Transformation book that looks at how Hyperautomation and Advanced Technologies are positioned to radically change markets, your business and its operations, your customer's wants and needs, and the way everyone interacts with everyone else to buy products, services, and solutions that will change how we live our lives. That is a big list. It is really everything in life. But that is the potential for the evolution that is taking place with Hyperautomation and Advanced Technologies. We must also consider that we are at the front end of the changes these automation and other digital solutions are able to deliver.

This evolution is expected to continue and the pace of their release to accelerate. This fact is the basis for this book. You will need to prepare to leverage this evolution or who knows what will happen, but it is clear that market share will be compromised, and profitability will be in question.

While the world of all things digital is making a profound impact on how we need to think about Business Transformation, there are other considerations that need to be included. The past 20 years of attempts to transform has resulted in a failure rate of over 70%. This is not sustainable. As a result, we have taken stock of what works and assessed the implications of disruption and the need to better design, plan, and implement Business Transformation with the disciplines that are critical to defining and achieving your Transformation. Finally, we have incorporated how the underlying business paradigms that define and drive how we create our business strategies and even our management practices.

Yes, this covers a lot of territory. However, Business Transformation is much more than simply implementing a new technology platform or redefining your customer's experience. To be successful, organizations need to create an integrated approach to their Business Transformation which considers all of the aspects we have outlined.

Are You Ready?

Given the innovations we are starting to see and the potential for ever-expanding technology-related capability advancement, you and your organization will need to have a clear vision and strategy for the future and what you will need to do to succeed in your market. You will also need to have the ability to quickly leverage modern and new automation capabilities and new digital-based technologies – like Artificial Intelligence that drives autonomous automobiles, the new move by Tesla to totally rethink the internet, robotics, virtual reality and much more. This ability to change quickly is a fundamental success factor for the future. Without this ability your company will not be able to respond to innovations from your competition, interaction demands from clients and prospects as they leverage these new technologies to change their worlds.

Because of the rate of improved products and new product releases, activities like strategic planning must now move from annual to at least a semi-annual process – and probably continuous as new technology capabilities offer new innovation opportunities and the potential to expand your market share in the matter of months rather than years.

Because these new technologies are different than the legacy technology everyone has lived with, the ability to make these changes may be out of reach for many. But understanding is the foundation for all else. Helping managers build the understanding needed to embrace and leverage these new automation and equipment technologies in a way that is affordable and low risk is a fundamental aspect of transformation.

Little what we know and take for granted will remain when this is finished.

We welcome you to explore the future and how to ensure that you are part of planning, designing, and making it real. To help you understand if you are ready to move forward and determine how ready the company may be to leverage the Hyperautomation and Advanced Technologies today and in the near future, we have included a self-readiness review. However, it will only be valid if those who provide the information are realistic about it – many tend to fear negative answers and try to make things seem better than they are. If that is a concern, external assessment assistance may be needed.

Experience-Based Knowledge?

This book is based on our experience with a number of projects across multiple disciplines (e.g., Research, Product Development, Marketing, Sales, Operations, Manufacturing, Customer Support, Human Resources, and Finance) as well as multiple industries, and the use of what is now called Hyperautomation in finding solutions for organizations. We have spoken with industry experts, those who are living in the trenches of organizations struggling to keep up and those who are on the cusp of re-imagining their future.

But there is no better teacher than experience. No one comes out of any college or university with the knowledge that experience provides. No one who has done the same thing for 20 years has the experience to transform an operation let alone the entire organization. This simple fact is why so many Business Transformation efforts fail to meet expectations. That is also why this book presents advice based on experience with well over 100 projects gained as executive leaders responsible for transformation efforts for some of the largest consulting firms in the world – Infosys, E&Y, TaTa, Arthur Anderson, IBM, Oracle, and ZS Associates.

To repeat - - this discussion, while it includes automation advances and new technologies, is about business and how Hyperautomation and Advanced Technologies will and could impact business operations and customer interaction.

We have found that the discussions that underlie Business Transformation and its implications require the involvement of all levels of business operations managers and technology

professionals. Why? Because a successful company in the age of rapid automation and technology evolution will need a new level of collaboration and an elimination of the business/technology barrier that has existed for the past 70 years.

Welcome to the Evolving Discipline of Transformation

We invite everyone who may be involved or affected by Business Transformation to read this book. We also expect this group to evolve as new people replace current employees, as roles and jobs are fundamentally redefined and others are eliminated, as new and unimagined roles are created, and as the automation and Advanced Technologies under the Hyperautomation umbrella continue to change.

This will be another century of building, but the rapid evolution of technologies will bring in a new age of Hyper Transformation as the old gives way to the new.

The simple fact is that sooner or later, you will be affected by both the transformation of some company or industry and the automation and other technologies that are driving innovation and rethinking of every company. The following chapters will help prepare you for what is coming and assist your company to succeed in the new world of Transformation and Hyperautomation.

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Dedication

This book is dedicated to the innovators – those who refuse to accept boundaries and choose to have the freedom to ignore past real and imagined limits. Now, maybe more than at any other time, innovators can dream of new things and make them reality.

Here is to those who recognize that there are no limits, are not bound by convention, and can imagine that any conceivable advancement is possible.

The Authors

Dan and Keith have led Business Transformation practices at many of the largest international consulting firms – starting practices and growing them. With experience in over 100 business improvement and transformation projects in multiple industries, the authors and their teams have created new approaches and techniques that have delivered consistent success.

They have also held leadership positions within organizations and been responsible for delivering results. Both Dan and Keith have walked in your shoes and have learned from failures and celebrated successes.

Over the years they have pioneered methodologies, tools, and techniques and they have taught others. This has given them a unique perspective of business and automation services – and of the "*art of the possible.*" A goal in writing this book is to share these hard-won lessons as they apply to Hyperautomation, Business Transformation, and Digital Transformation.

In an effort to share this knowledge, they have co-written 5 books, created over 40 eLearning programs, and over 70 articles for The Process Excellence Association (PEX), TechTarget, IT Business Edge, The Business Architecture Association (now the Guild) and many others. They have also spoken internationally at over 45 conferences, and they have and continue to host webinars and leadership roundtables for Process Excellence Professionals (PEX), Association of Business Process Management Professionals (ABPMP), Society of Information Management (SIM), Business Process Management Institute (BPMI) and My Career Transformation (MCT).

The culmination of this professional journey is the creation of a new approach to Business Transformation called "Business Transformation 2.0." This approach is outlined in this book. Please let us know what you think.

Authors

Who Are These Folks?

The first questions in reading any book or listening to what is being said is "*Who are these folks*" and "*What makes them experts?*" Both very valid questions. So, let us start by answering them.

Dan Morris

CBL, CBPP, CBA, Association of Business Process Management Fellow

Dan Morris has over 30 years of experience in Business, Technology, and Operational Transformation and management. He has been a member of the PEX Global Advisory Board, the Forrester Research International BPM Council, Business Architect Association Board and the Association of Business Process Management Professionals.

Dan has served as the US Practice Director for Business Transformation at Infosys, Capco, TCS, and ZS Associates. He has also served as an Executive Consultant with IBM (the highest-level consultant role at that time in Global Services), as the head of Wendan Consulting, and as a Senior Consultant for PWC.

Dan is an international speaker who has spoken at over 45 conferences. He is the author of five books on Business Transformation and over 75 papers and articles. He is also a columnist, publishing through Tech Target, PEX, and BPMI.

Dan is also one of the co-authors of the first Business Architect certification test for the Business Architect Association (now the Business Architects Guild) and has served as a key member of the Association of Business Process Management Professionals certification test teams.

With responsibility for over 100 improvement and transformation projects, Dan has a wide range of experience in multiple industries.

Together Keith Leust and Dan Morris are Managing Principals with My Career Transformation, an online training and consulting firm focused on Business and Digital skill and competency development.

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Keith Leust

CBA, Six Sigma
Black Belt, MBA

Keith Leust is a results-driven business leader with over 30 years of hands-on experience. His career has been split between leadership roles in companies and an executive consultant to Fortune 500 leadership teams. Keith held senior leadership roles including VP Transformation, Chief Human Resources Officer, Senior Director of Business Architecture, Head of Motorola University, and other executive positions at Prudential, American Express, Motorola, Oracle, and other global organizations. His consulting work includes business strategy and execution, Business and Digital Transformation, technology deployment and optimization, revenue growth, and cost optimization.

Leveraging his background as an engineer, with a Master's in Finance and a Six Sigma Black Belt, along with training in multiple change and transformation methodologies, he is a seasoned leader who focuses on outcomes and achieving desired business results. Keith leverages his ability to adapt and learn as conditions evolve to re-imagine what is possible.

His unique approach to Transformation weaves together the disciplines of Strategic, Operational, Organizational and Digital Transformation into an integrated agenda that continues to adapt as the needs of an organization shift and evolve.

Keith is a former board member of Business Architecture Association (BAA), now the Business Architecture Guild. He co-authored the first Business Architecture certification exam and career competency model for the Business Architecture Association and co-wrote "The Business Transformation Field Guide" to improve transformation outcomes.

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Introduction

Business Transformation includes several different disciplines and their activities. It is the combination of Strategic, Operational, Organizational and Digital Transformation.

Unfortunately, over 70% of these efforts fail to deliver executive expectations. While we provide a 50-question failure avoidance review at the end of the book, we will first focus on what must be done to succeed. By the end of the book and the self-review you will have a firm understanding of how companies and customers will adjust to the realities of Hyperautomation and the constant release of new and ever more advanced and more fantastic digital capabilities. This is designed to give readers an appreciation of what key actions help deliver successful transformation within your organization and where problems will likely impact your efforts.

Some companies will not be able to move forward and thus remain stuck in the past, while those companies that embrace the new technology's capabilities will gain knowledge, capabilities, flexibility, and a new lean business operation. Modern IT infrastructure with flexible technologies that set the foundation for future growth and deliver the abilities to move fast while controlling cost and limiting risk.

However, the future is not for the timid or those who are stuck on cost reduction, endless internal re-organizations, or incremental change. The future will be led by those who take thoughtful risk and drive innovation.

The foundation that is needed to define new ways to operate as the company evolves to a new adaptive business model – includes continuous strategic planning, continuous process transformation, adaptive operating models and organization structures, constant investment in your peoples' skills and capacity development, and ongoing technology investigation and deployment.

While many of the changes taking place are uncertain, they have the ability to improve every part of our lives. The road that will be taken will hopefully be chosen to improve the human condition and to help all in need. Time will tell, but the ability to improve the world and make a fundamental improvement in the human condition is a reality.

Chapter 1: The Need for Transformation and How the Discipline is Evolving

Managing Change

Let's begin with where everything started; the never-ending effort to manage and enable change. As far back as the 1970s and 1980s, organizations have worked hard to manage change and leverage ever improving methodologies and frameworks to help them move the current-state to a new envisioned future. This began with problem elimination which recognized that problems need to be addressed and better solutions put in place. With time came a deliberate focus on operational improvement to reduce costs and waste, while improving speed and quality. This evolved into re-engineering in the early 1980s which took change to the next level by re-imagining how businesses operate at a more fundamental level.

In the intervening decades change has and continues to accelerate. Today it has become a norm with disruption as a new reality that we all have to recognize and be prepared to address. The world we look out on continues to change and evolve at an accelerating pace.

People gain access to unprecedented and extremely powerful technologies – often rivaling the technology of companies

As a result, the tried-and-true methodologies and tools like Six Sigma, Lean Six Sigma, Agile Management, Re-engineering, Total Quality Management, Just-In-Time, Kaizen, Hoshin Planning, Design of Experiments, Balanced Score Card, and Process Excellence are by themselves no longer enough.

Disruption has forced organzations and their leaders to go beyond traditional methodolgies, and combine them with the new methodolgies found in successful Business Transformation. In addition, we need to appreciate that, as with all things, the discipline of transformation continues to evolve as lessons are applied and a recognition that once transformed an organization will need to adopt completely new mindsets that define Continuous and Hyper Transformation.

Are You Ready to Adapt?

The world is about to change again – does your company have the ability to take advantage of the Hyperautomation that is taking place?

You have all heard of Hyperautomation, hyper digitalization, and hyper technology evolution.

But what is Hyperautomation? In its basic form, it is a fairly new group of automation application development tools that combine to allow companies to build new types of technology solutions and platforms than could not even be envisioned just a decade ago. These tools work through models whose symbols each have a meaning and cause program code to be built automatically behind the scenes by the tool. They are heavily rules-based with the model symbols providing logic and decision processing, and their placement in the model showing relationships and thus the flow of activity. That is how it basically works, but the important thing is what these technologies do. They provide an architecture or framework for more logic and decision-intensive solutions and allow multiple programs from legacy to the newest Hyperautomation tools to work together. Although RPA, AI, and all the other tools can be used alone, these tools are often mixed in complex operations. So, each type of tool has a focused use and working together can expedite any situation support build, while providing flexibility through the tool's individual and collective capabilities.

Because several vendors offer more than one of these tools, we consider their offerings to be "platforms". Individual tools from these platforms can also be used in combination to access capabilities that are needed to build the solution.

Hyperautomation tools include:

- Intelligent Business Process Management Suite (iBPMS)
- Decision Support (DS)
- Robotic Process Automation (RPA)
- Virtual and Augmented Reality (VR and AR)
- Natural Language Processing (NLP)
- Machine Learning (ML)
- Cognitive Computing (CC)
- Intelligent Automation (IA)
- Artificial Intelligence (AI)
- Conversational Artificial Intelligence (CAI)

Companies have been moving to many of these automation-enabling technologies for the past several years as they have acquired individual tools on this list. Most notably, iBPM, and RPA tools are now in wide use. Aside from the fact that these tools can individually provide benefit, the fact is that when combined, they allow for new innovation. Examples of this multi-tool support are seen in the use of robots, autonomous automobiles, interactive assistants like Cortana, and tools that operate by voice command. But this is only the beginning as leaders experiment and new ideas are used to design things.

By whatever name the use of these application generation tools may be called in your company, Hyperautomation is here, and it is fast becoming a force you will need to reckon with.

We just read a story reporting that Elon Musk is about to do it again. This time, if successful, Elon will change everything in our businesses and in society. He is planning to transform how we access the internet by placing 11,943 communications satellites in orbit by 2025 and beaming internet service directly to the consumer. No wires or fiber optic cables, no towers, and no telecommunication companies in the middle. That will offer much faster service anywhere in the world and he plans to do this inexpensively. Think about it. He has the launch capability in Space X to put the satellites up and the technical engine to make it all work.

Is this a dream? We don't think so, but it could be. There are different opinions. It could also take years. But these implementation questions are not the point. The real point is that this is part of the overall Hyperautomation that we have started to write about. The question you must answer, "*Is your company ready to take advantage of these breakthroughs?*" We have left the first age of automation that took us to online computing, and we are entering into an age of technology wonder. But the old tech legacy anchor still holds many companies back.

We believe we are entering a time of fundamental business and societal transformation. We also believe that industry-wide shakeups are about to happen.

But to win will take investment. That can happen over time and only requires executive vision, willpower, and an integrated transformation evolution design and plan. All of which can be started any time – no need to wait for COVID-19 to be officially over.

Unfortunately, we are all still trying to deal with COVID-19, the disruption it has caused, and the uncertainty we all face with what the new government and what its policies will do. But we urge you to look at the longer picture and be a Hyperautomation and technology era survivor. To do that you will need to start to prepare soon.

The move into the future starts with recognizing what is coming and what it could mean to you and your industry, your customers, and your competition.

Implications

We always start looking at any situation by asking "*So what? What are the implications of what I am looking at? What can I use concepts, approaches, techniques, or automation for; what can I do with what I am learning? How is it useful?*"

Disruptions are occurring. Consider the Elon Musk example and his goal of transforming access to the internet and thus almost all communication. As of mid-2021, he has over 1,450 satellites in orbit. While the technology is amazing and only Elon Musk could pull this off, the really interesting thing is the implications of this technology and the fact that it is part of the whole hyper technology explosion. The fact is, once implemented, this new approach could change the way all communications work. It will have implications on data movement, the way we can use both AI and Cognitive Computing to leverage Data Lakes in asking questions – as they occur

to us in real time. That alone will drive other innovation and decision making. It will also allow companies to support questions on procedures and requests for information in a very different manner and more real time– especially for inexpensive access to people in other locations. This will have implications for customer interaction and for human/robot interaction.

And, mixing a couple of things, think what Virtual Reality over this type of carrier will become? Think of how it will change the leisure and related industries. And the ripple of combining these Advanced Technologies opens doors we have never even seen before. That is why it is so important that business and product designers understand the different technologies and what they each can do. Then creativity and innovation changes everything.

So, what is the implication – it is only limited by your imagination. Something that is boundless will have a profound effect on every aspect of our lives and every process in our business operations. The real implication is that there will be two short-term groups of companies - - those that find a way to adopt and adapt, and those that will wait and fall behind to die a slow death.

The difference will be executive vision and the will to succeed. And that can begin with forming an executive group that will be supported by those in IT and business operations who are both interested and creative. They will give the executives the information needed to form a vision of the future.

Business Transformation – A Big, Messy and Invasive Initiative

Has your company been involved with large-scale change or Business Transformation? If it has not, it will soon.

Change and disruption continue to accelerate. Innovations in digital solutions, new product experiences, shifting economies, emerging demographic opportunities, and rapid changes in customer values are driving a need to adapt. However, adaptation is not a single event. It is rather a need for flexible change capabilities as organizations build the capacity to constantly evolve.

Business Transformation provides a path to equip your organization with the ability to adapt and evolve in both the short and long term so that it can better compete and lead in the market. To be successful in the long run, your organization must move from surviving to thriving. We believe a key part of this change is dependent on your managers and staff and their ability to attain the training, skills, and experience needed to transform the organization.

To ensure that leaders and their organization are equipped with the most relevant change competencies, we built a team of industry experts and business executives to define how to design, plan, and implement successful Business Transformation.

Welcome to the "New Normal." A world where change is a strategic asset and organizations that can most quickly adapt will not only survive, but thrive.

Factors Driving Transformation

True Business Transformation is a strategic response to change, and it provides the opportunity to leapfrog your competition. But to do this, there are several critical facts that we all need to recognize as change and disruption continue to accelerate all around us.

- All organizations must transform, it is simply a matter of when. Those who do not will become irrelevant as they get caught in an endless cycle of cost management and incremental growth. Transformation re-imagines and rethinks your organization to create a degree of differentiation that is hard to replicate.

- Most organizations are involved in some degree of cutting costs, upgrading legacy technology, or solving small issues through continuous improvement. Today we are seeing even more focus on this as companies struggle to realign their cost and revenue models and focus on just surviving.

- For an organization to truly evolve, it must constantly adapt its strategy, recognizing external threats, innovation, shifts in customer values, change and disruption brought on by outside events, as well as the ability to determine what capabilities will serve the organization as change continues. This is the essence of instilling both practical business change and transformation capabilities, as well as "adaptability and resilience" into leadership and teams across the organization.

- As a result, companies must respond to this ongoing need for different skill development, and for updated change and transformation ideas and concepts, to equip leaders and change-designers with the practical frameworks, tools, and practices to increase their success - not just surviving, but thriving.

- The challenge is to find learning programs that provide a balance of the conceptual, along with the practical, to adapt to and implement shifts in the face of change and disruption. Along with this challenge, however, is the need to find learning programs that help beat the statistical 75% + knowledge and skill retention loss that occurs within the first week following training.

Ultimately, successful organizations recognize the critical and necessary investment in the development of the skills and capabilities needed to control business and Digital Transformation and make certain it happens by design, not by default.

Transformation Builds Organizational Capacity to Constantly Adapt and Evolve

Let's step back and understand the intention of Business Transformation. First and foremost, Business Transformation seeks to redefine the foundations of the organization so it can dramatically grow and capture market share. This includes rethinking your strategy, the business operations, the enabling digital environment and finally, how you organize and leverage your people. The ultimate goal of the transformed organization is to dramatically improve its ability to compete and differentiate the company and its products, services, or solutions in the market. This is a journey, but it is a strategic journey that requires that you have the ability and commitment to do it.

Once management has determined the changes needed to better compete, they need a strategic framework that all change must support. The focus will then shift to operational optimization by rethinking how the operation itself should transform and the type of capabilities that digital services need to provide. This rethinking drives the definition of Operational Transformation requirements for both the business and digital solutions.

That means that companies cannot carry the legacy operation or technology anchor around with them - let alone respond to change and disruption with a strategy that is no longer relevant to the market or your customers. Forward thinkers have been talking about the need to be nimble and able to make decisions, take calculated risk and respond to opportunities fast – very fast. For most, this is an impossibility today. But that is a real promise of transformation. However, it requires long-term commitment and breaking out of the cost reduction and improvement mindsets that companies tend to get stuck in.

But few companies are ready to do this. The old technology methodologies won't do it, outdated business processes chain you to the past, incremental shifts in how you create differentiation are easily replicated, and a reluctance to invest in digital capabilities due to past expensive failures hold you hostage to "what if?" In addition, old business project methodologies that focus on the return of investment on dollars, not customer value, are beginning to have a negative effect. Business Transformation is different than investments of the past. This is where training-based creativity and proven approaches come in. It is also more than an investment in the company's future. It is a stake in the sand that declares the company's intent to excel and not just get along with some cost reduction.

By its nature, transformation results in multiple simultaneous changes with radical and integrated shifts occurring in systems, processes, people, and technology across the entire enterprise. Acknowledging, understanding, and orchestrating these shifts is vital to your success. And finally, a significant difference over incremental improvement efforts like cost management, continuous improvement, and even re-engineering, is that transformation simultaneously addresses all aspects of a business to produce a new integrated operation that delivers unique and difficult to duplicate differentiation to customers.

Transformation Success Killers

Unfortunately, some companies do not have a well distributed or clearly understood strategy for their organization. This situation is found where managers pull in different directions – often based on delivering conflicting opinions of strategy and strategy execution. This creates an environment where Business Transformation is in trouble from the moment the effort starts. If the leadership team, at all levels, is not aligned around the detail level of strategic objectives, they will not be able to coordinate properly among themselves and individual and collective responsibility for transformation-related activity is lost due to misalignment. This is the foundation for achieving commitment - the company as a whole and each member of the team must be committed to working hard to maximize both their individual performance and that of their team.

We know that in any large critical project the end goals will change a little over time, as well as what actions will be necessary to deliver a successful transformation. That is why efforts from each manager to achieve maximum operating flexibility in their operations, while delivering changing objectives, is critical to any transformation.

Transformation efforts must infuse all aspects of the business operation. If leaders only look at what is in front of them with little regard (or concern) for the rest of the organization, the transformation will fail. They lack holistic thinking, and actively seek to operate within their own "swim lane" to ensure they perform better than their peers. This may be okay in normal operating times, but it is not helpful when organizations transform.

The fact that many leaders have grown up within a single business function and a lack of depth in knowledge of the wider organization reinforces this and, as a result, are blind beyond the walls of what they are managing. Many have been incented to deliver their goals but are very inwardly focused. For the larger picture, this often results in constant sub-optimization as each group within the organization is managed without a clear view of the overall organization's objectives.

Where this mobilization and alignment around a common set of core goals is not in place, resource investment in projects does not contribute to Business Transformation objectives, and efforts often become diverted to individual managers' agendas.

These are significant contributing factors to the 70% transformation project failure rate in meeting expectations which continues to plague organizations. But they can be easily avoided if the project leadership understands what to look for and has the authority to resolve the problems.

Transformation 2.0 – The Move to Continuous Business Transformation

Traditional Business Transformation considers transformation as a string of infrequent one-time events. That was largely accurate during the 1970s, 80s, and 90s. However, the explosion of technology, innovation, emerging markets, and globalization of business has changed that model.

In the past, transformation created a future-state model based on looking forward and creatively leveraging new technology along with company knowledge and skill assets to define, design, and build a new business model with the new technology integrated into the legacy IT infrastructure. Although this process took years to complete, it was considered to be a single project – a one-time event. But the issue that faces us today is that any project that will take over six months may never be completed as originally envisioned – too much will change in six months to allow any mid-term, let alone long-term target to remain relevant.

Today, many Business Transformation professionals recognize that transformation is an ongoing evolution designed to be constructed in phases. This allows the transformation to reflect the changing nature of modern strategy and the reality of innovation. This itself is a response to market evolution, technology, your competition, changes in global markets, and buying preferences. This iterative approach to strategy in turn drives business operating, digital, and organizational change. The end state has literally become a constantly moving target. This has two responses – the shot gun or the ability to adjust your end state design target – as an integration between strategy, operating processes, digital, and organizational.

Given this need for end state recalibration of large-scale change projects – transformation becomes both flexible and continuous. This requires that the comprehensive end state redesign model and the construction/deployment evolution plans must periodically review the envisioned operating model and adjust the end state design as well as the evolution and what is produced in each phase of the evolution. When this is put in place, transformation, which requires that all parts of the business be considered as a single entity, moves from a periodic series of independent one-time events to a continuous, but controlled evolution.

This approach also increases the flexibility of the transformation from timing, delivery, and financial investment perspectives, tying all together in a formal investment plan that changes and adapts as the financial realities of the organization change.

Successful Business Transformation

Business Transformation is a business action that leads to fundamental change and the evolution of your organization. It is holistic in that the entire organization is part of the future design. It includes everything from your strategy and how you create and deliver differentiation to the market, to how your values consider societal shifts, e.g., global warming,

sustainability, and community involvement. In many ways this determines the products and services you create, the processes you use to deliver value, how you organize and engage your people, how your business is both informed and leverages "all things" digital, and even the experience you create for your customers, employees, and external partners.

Business Transformation envisions a new future that has not been imagined before so that you can redefine your organization's role in the market to leapfrog your competition with innovations from the transformation. It enables the activities needed to make this envisioned business operation become a reality.

Successful Business Transformation in the future is thus likely to be a direct result of an integrated approach leveraging the creativity and experience of management and staff. However, experience has shown that you cannot treat transformation as you have for past projects. You must consider a new approach if you would like to avoid the tremendous disruption that has plagued many of the past Business Transformation projects.

Designing Transformative Change

The issue that has faced Business Transformation professionals for the past 15 years as technology and global pandemics have changed the playing field has been "*How to beat the huge failure rate and deliver consistent success.*" Unfortunately, too many have become locked into the dogma of legacy approaches and concepts that have not delivered. To us, this needed to change. In our approach we meld the lessons of the past with the needs of a rapidly changing and disruptive new technology revolution. We have eliminated that which is no longer relevant and replaced it with the new concepts presented in this book.

As Business Transformation professionals, we applied our techniques to the discipline of Business Transformation – realizing relationships and issues that are often the real cause of issues. Correcting these approach problems, we created a unique methodology and multiple techniques which adapt to the unique needs of different organizations. This new approach has and continues to be used in the only place that really matters – the trenches of projects.

The following chapters will help you determine your vision and goals as you move through the different conceptual business paradigms of change. We begin with change and disruption, and how to equip your organization to view these as strategic assets, that when leveraged will position you ahead of the competition. We then look at the four dimensions or perspectives of transformation that combine to provide a very different approach to transformation. We next look at the architects of transformation, which explores the six disciplines that are needed to plan, design, and implement the different aspects of a new design. We also challenge the transformation delivery approach and move transformation to an ongoing activity – with change being delivered in a defined and controlled series of evolution events.

Chapter 2: Hyper Transformation – The Next Step in the Evolution of Transformation

Hyper Transformation – The Next Step in Business Transformation

Hyper Transformation is a new term that we use to define the next step in the ongoing evolution and maturing of the Business Transformation discipline.

Hyper Transformation leverages and integrates new and Advanced Technologies and concepts and utilizes them to innovate and rethink the company's vision and market direction, as well as all of the business operations. This rethinking is both "re-imagining what is possible in terms of products/solutions/services/subscriptions to the market and how they are consumed." This results in new and very different business models and the fundamental questioning of all parts of the business to redesign around both business and automation capabilities.

Given the rapidly evolving automation and other technologies, and the speed at which business markets and customer interaction is changing, the act of operational transformation in business has become continuous. Because of this, Business Transformation in this time of Hyperautomation and the rapid evolution of Advanced Technologies, is creating the need for organizations, and their leaders, to be constantly looking at the future and both anticipating and creating visionary and operational change to provide competitive differentiation and market relevancy.

Hyper Transformation thus takes the notion of a "continuous" a leap forward by providing a business operating environment that is designed to change fast – leveraging Hyperautomation technologies. This flexibility also allows companies to create and modify Operational Excellence (OpEx) programs that reflect business and market realities.

This continuous change capability is made possible by the creation of a small group of people within an organization whose job it is to keep track of emerging Hyperautomation and Advanced Technologies and provide ongoing summaries and recommendations that are shared with all managers in the company. This allows management to understand and evaluate which Advanced Technologies may be useful as they re-imagine the business strategy and determine how these new digital solutions can be adopted, at scale, to continuously re-imagine differentiation.

At its core, Hyper Transformation is about identifying and implementing these new technologies and concepts and leveraging them to innovate and rethink the entire company and its market direction. To do this, we first must recognize that radical rethinking is needed along with the creation of a change ready infrastructure in both the business and IT. This is about positioning companies to grow and to function effectively in the new digital-based business and the societal environments that are emerging. To reach this state of operation, companies must, by definition, begin to mix the capabilities of Hyperautomation application platforms. More advanced companies will also mix new and Advanced Technologies like autonomous vehicles, robotic surgeons, virtual and augmented reality, or any of the thousands of technology breakthroughs that are becoming known. This move also presumes that these

automation and technology adoptions will be driven by a new and flexible approach to Strategic, Operational, and Digital Transformation that will be supported by Organizational Transformation.

Collectively, business and society have begun leveraging Hyperautomation tools and technologies, and the advances they are creating, to redefine new capability and product "wants and needs". This is creating a reliance on these technologies that is driving the need for Business and Digital Transformation. As organizations mature in their understanding and use of Continuous Business Transformation capability, they will naturally move to a continuous Hyper Transformation model and establish it as the new norm. This will result from the continued adoption of Hyperautomation products – RPA, ML, CC, AI, etc., and their use in creating ever more sophisticated business operations. This adoption will drive a change in the company's vision, its strategy and redesign, as new capabilities are applied to old issues. This will eventually have an impact on the answers to questions such as -

- What is the vision of our organization as we apply new and Advanced Technologies?
- How will the strategy need to be redefined so that we can achieve our vision?
- Will our business and operating model need to shift, adapt, or be re-imagined?
- What can be done to support customers and internal staff?
- How will business be managed, e.g., continuous planning and forecasting?
- How will Hyperautomation and Hyper Transformation impact implementing an adaptive operating model?
- Will we automate all repetitive work alone or will we redesign it first?
- How will we leverage advanced digital solutions so that they are defining and redefining business processes, rules, and decisions?

Of course, this impact will be the result of applying emerging digital solutions to everything from product design and development, to market differentiation and customer experience.

At this point in an organization's transformation maturity, Business Transformation is recognized as a consistent need as management constantly adjusts to market changes, adjusts to customer buying patterns, and evolving operational questions. Leveraging this information, management can effectively re-evaluate the fundamental underpinnings of the company and look at how they might respond to market or customer buying changes.

We are at the front of a technology-driven rethinking of the company, its automation support, and how the company will fit into its market, or completely redefine it. This analysis of the impact of Hyperautomation on the company, competition, and customers, will drive change.

Due to Hyperautomation and Hyper Technology capability advancement and the new products and innovations that we see coming at a steady pace, companies now need to ask basic questions on a frequent basis. This is necessary to constantly reconsider how the business can best compete, best operate, and remain relevant and prosperous. This questioning is often

based on market and customer changes empowered by technology advances and new automation capabilities and its application to both running the organization and driving the continuously evolving strategic agenda.

As the business operation and innovation capabilities evolve, leveraging Hyperautomation tool groups such as iBPMS to provide the overall solution architecture with RPA automating repetitive tasks and using both AI and Cognitive Computing to talk to customers, the entire operation picture will change. But, like Continuous Business Transformation, this change will be built as an evolution through discrete changes that move the company to a new strategic operating model.

While all of the benefits of Continuous Business Transformation apply here, Hyper Transformation is focused on the use of Hyperautomation tools and how Advanced Technology will allow management to re-imagine their business vision. The addition of these tools and those that are still emerging along with Advanced Technologies allows operational redesign or improvement teams to expand on legacy tool and environment capabilities.

Moving into the Future

The constant expansion of automation and technology capabilities have caused an evolution in executive thinking, as many senior leaders try to come to grips with what this all really means to the company and question how this can be turned into a competitive advantage. This technology-driven rethinking is causing a type of change evolution across the Business and Digital Transformation continuums and is enabling a transition to a vastly different future than most envisioned just a year or two ago.

Companies that want to be successful in the world of digital capabilities are becoming dynamic and reaching a point where they are able to evolve faster and faster. The foundation for this constant increase in the speed of business change is the expanding list of capabilities that are part of a category of software tools called Hyperautomation platforms. These Hyperautomation tools provide flexible digital capabilities and when combined with Advanced Technologies (like autonomous vehicles, new approaches to the internet, rapidly advancing energy storage technologies, and new holographic displays), allow us to go beyond just re-imagining the world, and support an ability to remake things around us in unimagined ways.

We call this melding of automation, Advanced Technology, and rapid evolution "Hyper Transformation." This is the most recent stage in the evolution of Business Transformation. It recognizes that new automation and other Advanced Technologies are the key to winning in the future. But getting to the point where these technologies can be used effectively is difficult. It represents investment and a willingness to rethink the current IT strategy and Digital Transformation which is most often loosely connected to IT capabilities and constraints.

But the saying that "creativity knows no bounds" is proven as new capabilities constantly emerge. As a result, the capabilities of the Hyperautomation tools are being combined both with one another and with Advanced Technologies to support an innovation explosion where the results of recent innovations are combined to form the base for other innovations as problems are solved and new concepts and capabilities are created. For example, advances in battery technology with new artificial intelligence capacities has allowed tremendous advancement in electric aircraft development. Also, we have just witnessed the reduction in virology timing with the creation of the COVID-19 vaccines – reducing the average time for a new vaccine's creation, production, and distribution from three to five years to less than one year. While how this happened is up for debate, the probability is that it was supported by a transformation of the virology process and the modification of applications using both old and new technologies along with an unshackling our brightest minds.

But unlike in the past, these new and emerging capability changes are being released in a constant stream of application development platform advancements and technology-driven products that are changing our lives and opening new opportunities. Generally speaking, this rapidly changing technical environment has allowed Hyper Transformation to emerge as the foundation for the next step in the evolution of the transformation discipline.

According to Gartner, "Business-driven Hyperautomation is a disciplined approach that organizations use to rapidly identify, vet, and automate as many approved business and IT processes as possible. Although Hyperautomation has been trending at an unrelenting pace for the past few years, the pandemic has heightened the demand with the sudden requirement for everything to be 'digital first.' The backlog of requests from business stakeholders has prompted more than 70% of commercial organizations to undertake dozens of Hyperautomation initiatives as a result." Gartner goes on to postulate that "Hyperautomation is now inevitable and irreversible. Everything that can and should be automated will be automated." - Brian Burke, Research Vice President, Gartner.

Now broaden your view and thinking to include Advanced Technologies that are being perfected and start to innovate. Build over time on what others innovate and combine innovations to solve problems your company, industry, or customers have to fight with every day as you are entering the Hyperautomation realm of business evolution.

It's scary, but an example of this rapid technological evolution is in robotics where new breakthroughs are happening constantly to drive ever more capable and smarter robotics every day as we push the boundaries of a range of technologies that people would have said were impossible to create only a few years ago. Robots are moving much better with advanced sensor technologies, functioning much longer with battery technology advances, thinking better with AI, and through Cognitive Computing advances are learning faster than ever. And this is only one of thousands of areas where automation and Advanced Technologies are blending to do things we thought were impossible.

These advancements are leading to autonomous vehicles and transportation, building a more integrated environment where humans and adaptive robots can work side by side rather than having robots in cages to protect us. Artificial Intelligence is now redefining business processes, rules, and decisions based on its ability to interpret data and information in ways that humans could never have imagined.

But, as with all things new, some are embracing it, while some organizations are ignoring it, and others are fighting it. Part of the reason is that there is no definitive definition for what any of this is or how it may all work together.

Hyperautomation

For many, Hyperautomation is new enough to be somewhat uniquely defined by most of those using the term. It also has different names – for example, Gartner calls it "Hyperautomation," Forrester calls it "Digital Process Automation," and International Data Corporation calls it "Intelligent Process Automation." Although this list will change a bit based on who you talk to, the technologies that make up Hyperautomation include:

- Intelligent Business Process Management Suites (iBPMS)
- Decision Support (DS)
- Robotic Process Automation (RPA)
- Natural Language Processing (NLP)
- Machine Learning (ML)
- Cognitive Computing (CC)
- Intelligent Automation (IA)
- Artificial Intelligence (AI)
- Conversational Artificial Intelligence (CAI)

But possibly more than anything, Hyperautomation is a concept and not a specific product or a list of products. In reality, the term is more of a way to group concepts and to determine what type of capabilities, and thus the characteristics this grouping must have. However, it is not the products that are important but how they can be used and how the company uses them to prepare itself to react quickly to opportunity. So, while these are the most modern and advanced digital tools available – the list of digital tools and products will change over time – and probably faster than anticipated. By this time next year, a lot will be different.

Advanced Technology

As with Hyperautomation, Advanced Technology capabilities and solutions are being created and deployed at an extraordinary pace, disrupting entire industries. As these innovations continue to emerge and evolve, they are forcing organizations to re-imagine what their vision and business strategy might and could be before their competition does. Examples of Advanced Technologies include:

- IoT/Sensors
- Telepresence technology (Zoom, FaceTime, Hangouts, etc.)
- Robots (that manipulate physical objects)
- Nanotechnology
- Telematics
- Wearables
- Virtual and Augmented Reality
- 3D Printing
- And the list continues to grow and mature …

Organizations and their leaders who are not aware of technology innovations and how they can define their products, services, and solutions will quickly be made irrelevant as their competition adopts these innovations and creates differentiation that will be difficult to emulate.

Hyper Transformation – Re-Imagining Your Business Vision

Given the speed of Hyperautomation capability and other technology releases, the past approach of an annual vision reset, and planning process is becoming too slow. Hyper Transformation takes the fundamental rethinking of the company beyond traditional Business Transformation and even beyond Continuous Business Transformation. This happens by first considering the future of the company and what it will need to do to build that future. This is a concept vision, and it is high-level – more of a list of goals and major capabilities. The strategy group then assesses both the latest innovations in Advanced Technology and Hyperautomation information-based vision with information provided by the hyper technologies review team, and applying innovation, proposes a new, more concise vision along with the capabilities this new vision will need. The capabilities are used to define what the new strategy will be and how the business operation and IT must adapt to deliver the new strategy. This is the foundation for the new corporate vision and a second iteration of the company strategy. This approach to defining a new corporate vision and strategy will allow the strategic definition to become fluid and able to support change at any time.

This expansion to consider company-wide concern for automation in determining business strategy is enabled by the creation of the new conceptual, completely technical layer in the operating model. This layer is also conceptual, but its implementation will create a new approach, company capability models, traditional automation, and Hyperautomation use standards and libraries of rules, bots and more. This layer replaces the patchwork of concepts, capabilities, and tools that is the legacy automation and technology layer today. The content and technologies of this layer are thus designed to directly support business strategy. The components of this technology control layer are focused on both automation and technology capabilities that enable fast and constantly adaptive transformation capabilities.

This next step in transformation is based on the principle that transformation is not simply a one-time change in the business operation, but rather a continuous activity that focuses the company on rapidly changing business operations to take advantage of the constant release of new Hyperautomation products and capabilities. The benefit of this approach to both technology control and business change is the ability to constantly redefine the operation by leveraging new technology as it becomes stable. This positions the company to create innovations that disrupt the market in a way that is favorable to the company and customers - ensuring continued competitive advantage.

Combining the automation capabilities and flexibility of the new Hyper Transformation environment with the capabilities of these and other Advanced Technologies opens new doors and opportunities for products, direct customer interaction, and market expansion.

An example of these emerging technologies can be seen in robotics, autonomous vehicles, swarming miniature drones, 3D printing and display, and AI which is starting to permeate everyone's lives. Of course, this type of innovation is the hallmark of some companies. In a similar example, Ford has partnered with Argo AI and Agility Robotics to offer a new type of package delivery product.

Then come technologies that are still "sleepers" like virtual reality, nanites, predictive analytics, holographic display and interaction, and swarm intelligence. And we have just scratched the surface of what could be useful to fundamentally change your business.

With creativity and a sound understanding of what Advanced Technologies are both available and becoming available there is no end to how this type of partnering can drive innovation in operations, customer interaction, and the type of product that is built. However, to go beyond the ideation stage, companies will need the type of control, infrastructure, and capabilities of Hyperautomation that will be available through a Hyper Transformation-based operating environment.

Hyper Transformation – Re-Imagining Your Business Operation

Hyperautomation tools offer tremendous flexibility in allowing companies to reimagine what could be done and how the company and IT could transform. However, we see Hyperautomation tool vendors focused on their use to generate applications that need little developer effort as "low code" tools. This focuses the use of these tools for tactical cost reduction, which they excel at. But their use is seldom part of a comprehensive business/automation transformation strategy. The result is that different business units may acquire different Hyperautomation tools to create solutions that cannot be combined without significant "interfacing". As the Hyperautomation tool portfolio increases to include tools such as iBPM, RPA, AI, and more, their use may become uncontrolled across the different business areas creating the same situation companies face today with legacy applications built in many different languages and following any number of design approaches. Given that most agree that the legacy situation is a mess, why recreate it again with Hyperautomation or Advanced Technology use?

Whether you follow the approach we propose or not, companies should clearly not allow the same automation situation that limits them to be replicated.

We also urge readers to consider a broader, collective view of these technologies and how they can be used to strategically align the Digital Transformation to company strategy and operational OpEx. That will allow the company's senior management to envision an operation that is significantly automated and able to handle both standard and nonstandard activity. It also allows an evolved OpEx program, where with the application of AI and other solutions, processes and their Hyperautomation support can deal with variability - constantly changing what they do based on new conditions, changing rules and the resulting decision. This can be done because the new Hyperautomation technology can understand these variations and can be built to infer, mimicking human thought to come up with ways to deal with the variation.

AI use is all around us today and we are witnessing machine learning, voice recognition, and how we can talk to the computer and have it independently search the internet to find an answer. We also see AI-designed products that are manufactured with 3D printing. For example, although earlier versions of AI applications have worked for people to design new products and improve others, we now see automobiles and other complex products being created by 3D printers.

These are some of the creative uses of both Hyperautomation and Advanced Technologies. We are now able to pose a problem to an AI application and it can independently try an untold number of variations and approaches, going through more data than a team can review to build decisions and present the answer – all independent of humans.

In reality what really matters in any Hyper Transformation is capability. That is what gives a company the ability to execute strategy and to change. If you deliver business evolution agility

and its related ability to mobilize all of the components of Hyper Transformation, you will have the overall ability to effectively react and to deliver innovation – improving the company's ability to compete and gain market share. That is the real goal with cost reduction being a secondary goal that is part of any business redesign. So, the Hyper Transformation redesign always starts with the question of "how can the company increase market share" and can the company deliver all needed capabilities within the current IT architecture?" The questioning then moves on to the actual redesign, starting with the goal of increasing efficiency. Together, this questioning tells management what can be done, how the IT environment may need to evolve, and provides the framework for the new transformation design team to build agility into the operation design – including guidance and standards governing what Hyperautomation platforms will be used, what tools will be used (iBPM, RPA, AI) and what they will be used to do.

In practice, following the definition of the future-state operating model and the identification of needed operating and support capabilities, the conceptual foundation will have been defined. You will have a picture of how the future business will need to operate. This information is used immediately prior to the integrated business/automation redesign, where the real difference between Business and Digital Transformation in the traditional approach and Hyper Transformation comes in.

This difference is driven by Hyperautomation tools and by a new IT technical architecture which defines how automation tools can be used. This architecture and its use standards will guide a melding of these tools with Advanced Technology to form a new opportunity to prepare the business to work effectively in the future and to focus on innovation. This opportunity is based on the capabilities of a new, redesigned and updated, automation architecture and the hardware upgrade and application generation capabilities. Considering both the Hyperautomation tool and Advanced Technology capabilities together allows IT to build a set of capabilities that can be used consistently to control the environment and instantiate all the lessons that a company's IT professionals have learned in the past 50 years to create a flexible type of company automation environment or super platform.

The goal here is for technology, tools, or applications to be replaced at any time with minimal overall disruption as capabilities are pulled out of the solutions and replaced. This capability is not all that far away but it does require a modular approach using well-defined standards.

Consequently, the past of looking at IT as a separate part of the company will need to change as modernization becomes a strategic goal and automation support is merged with the business operation redesign activity to deliver a new change process.

Building the Capabilities and Capacity for Your Hyper Transformation

A flexible vision is the foundation for any transformation. This flexibility is needed to deal with the rapid changes that are now a characteristic of most markets, the technology that is available, the company's operation, the customer, and corporate partners (suppliers, distributors, consultants). To some degree this flexibility is a natural result of adopting Hyper Transformation and adapting to the new technologies that are changing the IT industry and the capabilities they offer. These new capabilities include predictive analytics that work with executive management to look at different options and predict an outcome.

But as company management gains knowledge of what the Hyperautomation and Advanced Technologies can do and become aware of the innovations that are being contemplated both in the company and in their industry, it is natural for them to reconsider how these changes could be used to further reinvent the company and possibly its products. This will cause a possible new visioning of the operation that will restart the vision discussion, vetting, and evaluation process. Today this restart can happen at any time.

To accommodate this rethinking and revisioning, the visioning process will need to become extremely flexible and continuous. This will also support reactionary revisioning as competition releases innovations and the company needs to deal with global disruptions like COVID – 19.

Based on the changing vision, the company will rethink its strategies. Again, this strategy reset will happen at any time on an "as needed" cycle. As the strategy is reset to deliver the new vision, business, technical, production, and sales capabilities will need to be reviewed and added to, changed, or eliminated. This will, of course, impact the future operating vision and thus the technology support requirements and require that the goals, Business Transformation models, and Digital Transformation models be modified. This reality is the reason that the Hyper Transformation process is based on an evolution of operation capabilities at the business function level.

> Note: Business function is defined as the grouping of individual activities and their automated support, that combine to deliver a service or component of a product or service.

This evolution is what allows changes to be complete as improved business functions are finished and properly implemented. This continuing change can be disruptive if the company is not prepared for it and the transformation programs designed to absorb these changes. This flexibility was not possible before the expanded understanding of what Hyperautomation was really capable of when considered collectively.

The issue in this flexibility is one we have run into in IT organizations that allow shifting priorities and sending even already started projects to a "parking lot" where projects go to be forgotten about. The impact is that while the IT department and the developers especially work hard and long hours only to have no meaningful results from their work. Why? Because

little is actually finished in their quest to accommodate shifting business priorities. However, this can be guarded against and accommodated in non-standard ways, like bringing in consultants or temporary independent staff with the right skills to re-energize a project or get past some type of roadblock.

The main complexity in this grouping of activities into business functions is that needed capabilities may not be totally performed within a given business function. That will require some flexibility among the developers, but there are several ways it can be handled without slowing down the development of the business function solution or the Hyper Transformation evolution.

However, these automation capabilities must be preplanned and built as part of the general Hyperautomation startup foundation build. This takes time and investment but can be accomplished as a test of developer skills following their completion of the vendor's product use training.

Many companies have found that it takes planning and preparation to successfully transform – you cannot just do it. For example, in Hyperautomation, companies need to consider the strategy, the organization, the operation, and the digital intermixing of perspectives to determine the transformation and the capabilities that are required. This multifaceted perspective is built at the beginning of each transformation and confirmed at the beginning of each phase in the transformation solution's construction. This helps customize the underlying technology's capabilities, standards, and methodology that will be used.

Leveraging Hyperautomation Tools and Concepts to Radically Re-Define Business Operations and the Enabling IT Environment

Many companies that have Hyperautomation tools need to take a step back and realize what they really have and all the things these tools can be used for and how they can work together. This understanding will open new vistas on the possibilities that transformation could achieve. This extra dimension of understanding is seldom sought by a company and seldom discussed by vendors – but it is critical. This realization is what turns the use of a tool to generate programs into a strategic asset.

The main considerations in Hyperautomation is that the tools, while powerful, are tools and that strategic value comes from knowing what they can do and what it will take for them to do it. With this understanding, these managers will visualize what a new business operation could look like and what it should look like to deliver the capabilities that will allow the company to prosper.

Based on this understanding of the business and technology, the business managers and transformation developers can pose "what about and what if" questions whose answers, if

properly analyzed and leveraged, will add to a level of creativity in the business operation that can radically change the company – both preparing it to operate optimally in the future while reducing the operation's cost.

However, the old saying holds true here also – "you will get only as much out of any transformation as the company is willing to put into it." Optimal results require well-trained business professionals along with an investment in Hyperautomation tool-specific solution development. From experience, the development of advanced skills in these or any technology requires practice. This also builds their understanding of the Hyperautomation tools, and an ongoing study of what others have done creatively using these tools.

With this understanding and their knowledge of the business and legacy applications, the Hyperautomation development teams can begin to build a Hyperautomation use framework collaboratively with all the current and potential users of the various solutions and begin to build close relationships so the development teams can work with the users to innovate and improve capability effectiveness.

Applying the Hyper Transformation Approach

As with the traditional approach to Business Transformation, the team first creates a comprehensive business model Hyper Transformation. The transformation process now diverges from the traditional approach. In Hyper Transformation, the new business model will be created based on the strategic operating model of the future and the application of Advanced Technology and Hyperautomation tool capabilities. All problem elimination, opportunities for improvement, operational streamlining, and application use will be shown in this new strategic operating model.

The new business model provides a type of context that aligns to the future operation requirements and their capabilities. Hyper Transformation then looks at how new business functions and their activities need to interact to deliver needed capabilities in a way that allows the construction of a tightly integrated business operation with flexible automation support?

The traditional approach viewed applications as separate automation components that supported focused on a specific activity. Shared systems expanded on this concept, but the technology and the applications were still loosely aligned to the business.

The new technology architecture in the company, and its Hyperautomation platforms leverage Hyperautomation tools capabilities to direct an evolution that will eliminate most or all, legacy technologies. This business design environment will now be viewed as the conceptual playing field for the Business Transformation. This aligns the new infrastructure with its Hyperautomation tool capabilities and blends them. This new automation environment, along with its standards and use directions, will provide future consistency to automated solutions

and will limit complexity – reducing the total cost of ownership and improving the speed of change or new application generation.

In Hyper Transformation the first draft of the future-state business model designs stops at the conceptual level – what must the business be capable of doing and how will the business operation and its automation needs fit together? At that point, a fundamental rethinking of automation takes place. The Digital Transformation component can now drive a rethinking of automation capabilities based on the company's market position in the future. As the business is redesigned to deliver strategy and the business capabilities are defined, the goals that define requirements and align to business strategy and capability needs can begin to determine the future IT capabilities that will be needed, defining Digital Transformation in a way that provides justification and supports a new IT infrastructure. Through this approach, new automation capabilities are aligned to the operation. The goals and conceptual future business model are thus directly related and the application of Hyperautomation and Advanced Technology blended for innovation consideration. As noted throughout this book, the drive for innovation in the future is critical to long-term success. For that reason, it is considered in every part of the Hyper Transformation along with the environment changes that may be needed. In this way, all automation is justified based on business capability enablement and all hardware acquisition and use is based on the capabilities that must be delivered. With needed flexible capabilities in place, the company and its IT support will be in a position to move quickly to improve or adopt innovative ideas from others, or to support the creation of innovations from internal managers or staff.

Re-Imagine What is Possible

The underlying capability in re-imagining the future business operation is the ability to change fast – constantly, allowing the team to introduce new capabilities for your organization and customers, reduce effort and cost for staff, and remain relevant to customers.

As an example, much of the repetitive work people do in companies and factories is being automated using RPA, and in some cases a combination or iBPM, RPA, and Natural Language Processing. We were involved in rethinking a sales representative field contact process recently. The goals were to improve the effectiveness of each contact and to reduce the per contact cost. The solution had a process management component that schedules calls and routes them to the service representative. As the representative neared each call, the computer, keeping track of the rep's location, fired off an AI overview telling the representative what they should talk to the prospect about and the key points to be made. AI and Cognitive Computing looked up what the competition was saying, and algorithms determined what the representative should ask and say to give the company a competitive advantage. All this was presented to the customer service representative as he or she parked the car making them ready with the latest information. We were also considering giving the representative the

ability to ask voice-based ad hoc questions to the application system while talking to the prospect about production dates, delivery date, costs, and more.

To support this type of interactive service, Hyperautomation involves leveraging multiple automation technologies to create a new automation environment that is flexible, and rules/algorithms based. The result of leveraging these tools in groups is that they tend to work together to support different parts of a business solution.

The implications of automating a large part of the work being done manually today are far reaching. Not only are traditional low-skill jobs with repetitive tasks being automated, so are those that have in the past relied on humans to make ever more complex choices and decisions – through decision support systems that tie into automated probability analysis and historical decision making to provide guidance. Through their innovative use, Hyperautomation and Advanced Technology are key parts of systems that are now affecting all aspects of our lives.

An example is the collaboration between Ford Motor Company and Boston Dynamics to pair an autonomous vehicle with a delivery robot. Imagine a robot delivering your next Amazon or grocery order. This takes touchless service to a whole new level.

And soon we will have autonomous electric airplanes, trucks, cars, and more as robotics and Artificial Intelligence continue to merge with Cognitive Computing – where computers are given a task and then autonomously learn how to do it.

This is not science fiction. Much of it is here now and its capabilities are increasing almost daily. The question for companies that are adopting Hyperautomation is how to use these new automation platforms with existing legacy applications and licensed software to interact with customers in ways that are fun and fast – such as possibly a type of gamification using 3D or holographic imaging (soon we will have holographs viable on our mobile phones), augmented and virtual reality and expanded voice interaction. Companies that can achieve this mix will remain highly relevant and dominate their industries. They will also likely gain market share and improve profit margins as customers deal with them because it is fun to do so.

Chapter 3: Transformation Continuum – The Constant Evolution of Transformation

The Transformation Continuum - How Did We Get from Operational Improvement to Hyper Transformation?

Over the last 100 years change has taken on a new meaning. An untold number of tools, approaches, methods, and unique techniques have been tried with varying results. We have a situation of change overload in many companies as managers and staff wrestle with the change priorities of the day. Change fatigue from programs and projects that simply faded away after a month or two is common. And worst of all, distrust has reached epic proportions as companies focus on staff reduction over revenue growth. Staff members have had to absorb the work from those eliminated because work was seldom reduced where staff has been cut.

We must now recognize the past and work through transformation to regain customer, staff, and manager confidence. This can be done if we are careful and add in concern for our best people as we change and focus on sales targets and market share growth.

As we move into Hyper Transformation, these concerns should dominate our decisions as we adopt an innovation and growth attitude throughout every step that is taken.

This journey started to be formalized with Ford Motor Company and their assembly line. The initial focus was on efficiency, problem resolution, and innovation. This really culminated in Edward Deming and Six Sigma and a focus on problem resolution and production consistency.

These tenants were applied first to manufacturing and then to business operations improvement where we began to consider efficiency and cost as the focus of change.

We call the evolution of Business Transformation the Transformation Continuum. Each step builds on the last, and we expect it to continue to evolve and change.
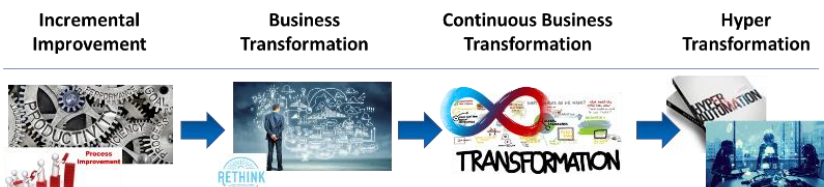
Business Transformation

As we moved into the 21st century, the refocus changed again and we realized that due to technology, globalization, and access to great transportation and logistics, we needed to fundamentally rethink our companies – what they made, how they made it, who they sold it to and how they could interact with customers in a virtual world. This heralded the Business Transformation movement and a focus on process improvement and the transformation of how business was conducted. About this time, automation began to improve and offer an ever-

growing list of automated change modeling and application development capabilities - and then everything changed again.

The Emergence of Continuous Business Transformation

Continuous Business Transformation is the constant state of rethinking and reinventing any part of a business operation – including the entire company and the reason it is in business. The key concept is the notion of "constant." Meaning that annual processes like strategy and business planning, budgeting, or product development need to shift and be constantly in a review mode and evolving to keep pace with how customers want to interact and what products they want, as both change.

Given market changes, such as customer buying pattern changes, product changes, and automation and Advanced Technology changes and the rapid innovations they allowed, it became increasingly necessary to fundamentally look at the market, competition, customers, and both automation and Advanced Technology capabilities on a continuing basis. The pace of change and of business evolution had now accelerated to a point where management had to pay constant attention to changes or risk being left behind and become irrelevant in their industry. This problem was exacerbated by the fact that legacy applications and the IT technology infrastructure in most companies had become largely obsolete, making business change very difficult, costly, and risky.

An example is Uber which re-imagined the taxi industry by leveraging technology in new ways and does not own any vehicles (yet). They created an entirely new technology solution by leveraging existing capabilities, while not being constrained by legacy platforms, solutions, or thinking. A challenge going forward is not to be constrained with their current technology which will quickly become obsolete as Advanced Technology and Hyperautomation solutions continue to evolve.

The Advent of Hyper Transformation

By 2021 the pace of automation and Advanced Technology increased to an almost constant release of significant improvements in the capabilities of these technologies. In response, businesses now need to move to the next step in this evolution of change – Hyper Transformation.

This term is an extension of the term Hyperautomation which was coined by Gartner Research as the combined use of certain types of advanced and emerging technologies. We accept this but believe their definition addresses only one part of the overall Business Transformation picture. As Business Transformation professionals, we believe that Hyperautomation is about capability and what these automated tools allow you to do in both redefining an organization's

vision and enabling strategy – as well as business operations that deliver results. Expanding on this view of hyperautomation, we believe that all companies that wish to grow and survive in the long term will need to adopt these automation technologies and become proficient in using them for more than creating an application or two. To make this change from the past to the future is the new disruption and the new challenge for companies. So, combining terms we get hyper from hyperautomation, which is driving this evolution, and transformation from business transformation – this move is transformative and will radically change the way business is supported and conducted.

Hence, the term Hyper Transformation was created.

But the automation technologies, while critical, are only about 2/3 of what is needed to move into the future where we believe a dominance shakeup will occur. To add to the hyperautomation capability explosion, we blend these automated tools with Advanced Technologies to look at how we can combine the capabilities of these automated tools with the capabilities of the technologies – and ask *"What will the combination of these digital capabilties allow a company to do?"* This is the first step in real innovation – *"What can we do now that we couldn't do before?"* We can then ask *"How can that be used to make serious improvements in our business operation or products?", "How can we use this to improve our product relevance to our customers?",* and *"What impact will that have on our market position and for our customers?"* This forces leaders to re-imagine their business vision and strategy by incorporating these new technology capabilities into what the customer and market will want next. The irony is that if leadership chooses not to accept this new reality, your competition will.

Because this can now become a continuous process due to the frequent releases of new automated tool advances and new releases in Advanced Technologies, this is becoming a constant need in companies. The fact is that when innovations are blended, the results are becoming something "out of science fiction." In many situations we are now faced with a new question – it is no longer can we? Because we can. The question is now *"Should we?"* That is a very different question and will challenge us as a species. But only time will tell on answering that question.

Today, the pace of change and most importantly the Hyperautomation and Hyper Technology release is so fast and constant that companies are being forced to rethink their operation, technology, customer, and product lines continuously. This is needed because it affects strategy, market approach, customer profile, and geographic market. It is also critical in remaining relevant to customers as their "wants and needs" change with Advanced Technology and the release of new capabilities.

To best define the evolution of Transformation we will look at the discipline in terms of the Four Dimensions of Transformation that form its foundation.

Four Dimensions of Business Transformation

We define Business Transformation across Four Dimensions that create an integrated and holistic view of your business operation's future-state. The Four Dimensions include strategic, operational, organizational, and digital views of transformation. Each are essential aspects in defining the design, planning an approach, and implementing your transformation agenda. As an organization matures, its own transformation journey will evolve and, each of the Four Dimensions of Transformation will evolve.

- **Strategic Transformation** explores where you are going and how you will get there. This transformation should support business paradigm decisions which are covered in "Chapter 6: Business Paradigms: Gaining Marketplace Dominance While EVERYTHING is Changing." The business capabilities that are needed to support both current and future strategic execution are also determined in this perspective. Here we begin with a strategy which translates into strategic goals and a bold, yet realistic transformation agenda. Consider:

    - What capabilities are core to your success?
    - Where does competitive differentiation matter and how will it be delivered?
    - How will digital solutions enhance and define aspects of your strategy?

Strategic Transformation begins with the vision for the future operation, the marketplace, the customer, and the place the company will fit into in the overall competition for the market's customers. In the future, visioning, strategy, Hyperautomation, and the product category mix the company will acquire, will determine the automation capabilities that will be available at each phase in the operation's transformation. This determines what types of changes can be supported - and when. By timing the acquisition of these tools, an evolving approach to strategic capabilities can be identified and aligned to both Operational Transformation's and Digital Transformation's evolution as the future operation is built.

This allows the evolution to the future-state operation and the operation design to change easily over time as new Hyperautomation capabilities are released.

- Second, is **Operational Transformation** which describes WHAT you must do. In effect, the business processes needed to deliver on the customer promise. Here it is important to define what your target operating model looks like and how it will be delivered. This "future-state" or "to be" business design will reflect the capability needs of the envisioned strategic future business model and lay out the business functions, their activities and their flow, their automation support needs, and performance goals. Data content, source, and flow will also be noted along with transaction volumes and timing.

This design will be high-level at this point, and it will be taken to a low level in subsequent steps where it will be streamlined and checked for compliance with different regulations and union agreements.

This is the top of the hierarchical business model, and it includes the process, sub-process and business function levels.

It is important to build maximum flexibility into your operational design – both with human-based activity and automated support. A key part of the new design, at all levels of detail, is how to integrate Operational Excellence into all aspects of your organization to improve the outcomes of all processes. By prioritizing the outcomes and the experience that processes deliver to customers, employees, and business partners, you are able to prioritize the Operational Transformation agenda more effectively.

- Third, **Organizational Transformation** describes how leadership and people work together in the new transformed business operation. It aligns to the evolving business operation as it moves toward the planned future-state and addresses skill evolution, just-in time training, organization, and even new previously unimagined roles.

This includes building a performance-based and values-based culture, ensuring that talent is placed into the best roles; in an adaptive structure and that everyone's role is aligned to your strategic goals. By investing in agility and flexibility, the organization and your people are better equipped to embrace new ways of delivering value, while constantly ensuring the ability to thrive in the face of change which is imbedded across the organization. Organizational Transformation enables strategic, operational, and digital agendas to be developed and redefines how people work together to achieve the shared objectives of your organization.

Manager and staff change management will tie into the transformation through the Organization Transformation communication design that this created and managed here. This is a critical part of any Business Transformation and is especially needed when the company is going through a widespread fundamental transformation. This is even more true in automation-based Hyperautomation-focused Business Transformation where most activities in the company will be modified.

- Fourth**, Digital Transformation** is defined by the business strategy it must support. Transformation considerations here include the technical infrastructure redesign and automation technology updating, along with the potential for a complete technology operating modernization. Like Business Transformation, Digital Transformation should be viewed as an evolution to a specific model over time. This transformation determines how technology and emerging digital solutions will enable the strategic agenda, while delivering high quality/low-cost solutions as part of the customer experience. Adding Digital Transformation moves Business Transformation a step

further to enable Operational Excellence by aligning automation activity to operation problem resolution. This capability can be extended further by adding performance measurement and management into the data collection, cadence, editing, use, and transformation activities.

This is the dimension that determines the types of support that will be available, its timing, and its capabilities. As such, automation, especially when aligned to Hyperautomation tool platforms, plays a foundational role that affects all capabilities and the speed at which they can become available for use in the construction of the new business operation.

As soon as the vision for the future is determined, the project leader can determine the needed capabilities of the future operating model and align them to existing and new automation tools to begin redefining the technology architecture of the new business operation. From the new future-state strategic operating model and the operation transformation evolution model, the Digital Transformation requirements will be known, and the transformation can be both defined and aligned to the operation transformation evolution. This will allow the needed Hyperautomation and other technologies to be available when they are needed and eliminates delays by not having the needed automation capabilities available when they are needed.

In this way, technology modernization and innovation based on the new technical capabilities will be available to keep pace with market differentiation. At the heart of Digital Transformation is recognizing that technology has shifted from offering "new tools" in an attempt for the organization to be more efficient and effective, to becoming a strategic differentiator that provides capabilities that redefine the strategy and even a Business Paradigm. For example, consider how gamification, AI, and other digital capabilities are fundamentally redefining organizational strategies, the solutions they offer, and the customer experience they provide.

Often failed transformation efforts are a result of the organization focusing on only one or two of these dimensions without considering all four. Even if your transformation does not result in a significant change in each of the dimensions, it is still essential that planning and design includes each, so that critical aspects are not missed.

The Transformation Continuum in Detail

The following table is used to help understand how each of the Four Dimensions of Transformation evolve across the four stages (Incremental Transformation, Business Transformation, Continuous Transformation, and Hyper Transformation) in the Transformation Continuum.

	Incremental Improvement	Business Transformation	Continuous Business Transformation	Hyper Transformation
Strategic				
Operational				
Organizational				
Digital				

It is important, as you plot your transformation journey, that each step along the continuum builds on the last and creates a roadmap to maturing your organization's core transformation capability.

Strategic Transformation Considerations Across the Continuum

As discussed, Strategic Transformation is the ability to clearly define where you are going and how you will get there with well-defined objectives and metrics to assess progress. As an organization matures its ability to transform, its strategic capability matures dramatically. In a traditionally managed mindset of incremental change, strategic planning is a laborious process grounded in cost optimization and incremental growth of the strategy.

As the capacity to transform matures, strategy evolves from incrementalism to a fundamental re-thinking of the future-state, to a continuous process that leaves behind the vestiges of an annual cycle so that strategy becomes an agile process. Finally, as we move toward Hyper Transformation, leadership recognizes that not only is the strategy planning and its execution continuous, but with the constant introduction of automation and digital solutions, the very essence of the strategy must be constantly re-imagined.

Failure to aggressively assess, where to appropriately integrate emerging Hyperautomation and Advanced Technology, will create a competitive gap that will be hard to overcome as the company falls behind in the technical capabilities race and loses their ability to act as fast as their competition can. A key mantra in evolving your organization's strategic capacity is to constantly be asking, "*If I was the competition, what would I be thinking about and doing next to unseat every market player?*" This is the exact question your competition is asking itself every morning as they look to make your organization irrelevant.

The following table outlines in detail the evolution of Strategic Transformation across the overall Transformation Continuum and should be used as a reference point. How each aspect of Strategic Transformation is defined and evolves across the continuum will be unique for your organization and will need to be adapted accordingly.

This evolution is critical. It clearly shows that in the early stage of Continuous Improvement, strategy plays little role – with a dominant focus on cost reduction. As organizations need to change to keep up with the competition and reduce cost increases, you will see how business strategy plays an ever-greater role in directing change and defining what a new business operating model looks like. It is also clear that Strategy, Operational, Organizational, and Digital Transformation are usually separate in Business Transformation today but begin to come together in Continuous Business Transformation and cannot be separated in Hyper Transformation.

Strategy and its role in Business Transformation clearly changes as the company's ability to change matures. As the company matures in its ability to change, the nature of the change also shifts. The early focus is really centered on cost reduction and not

automation – although minor automation changes may occur. As the change process itself evolves, the focus becomes more aligned to process optimization, and later to automation technology capability improvement and the capabilities that modern technology brings.

Transformation and the ability of the operation to really change is limited, however, by the big constraint in almost all companies – legacy technology. This constraint will need to be considered in all stages of Business Transformation as eliminating it over time becomes a strategic goal. This replacement of legacy technology is, in the long term, critical if the company wishes to modernize and prepare to become a dominant player in their market. The reason is that most legacy applications were written over 20 years ago and modified constantly resulting in application programs becoming what is often referred to as "spaghetti code" – named for how the logic and rules just wander in the program structure due to constant changes over the years. These changes are also poorly documented and poorly designed to fit into the existing programs. However, they work for the most part and they allow the business operation to limp along. But true operational flexibility and optimization will never be fully achieved until these old technology-based applications are replaced with modern application generation running in well-designed automation environments.

This technology centric driver increases its impact as the transformation capability evolves until in the Hyper Transformation state. This allows both Hyperautomation and Advanced Technologies to play a major strategic role in empowering and directing change. As companies prepare to operate in the future, they want the capabilities these new automation platforms and Advanced Technologies bring to drive innovation, increase their ability to compete, and continue to streamline an ever-evolving operations environment. That is what is driving the real increasing role of strategy – answering the questions around, "*What can I do to win with these technologies?*" This is also why as you approach Hyper Transformation, the questions around winning begins to take precedence over the questions around cost reduction that were asked in Incremental Improvement and Business Transformation.

Transformation Continuum – The Strategic Dimension

	Incremental Improvement Characteristics	Business Transformation Characteristics	Continuous Business Transformation Characteristics	Hyper Transformation Characteristics
Strategic Planning	Change is based on opportunity, problem response, or cost reduction. It is not part of a business strategy.	Transformation begins with re-imagining the business strategy and making the needed investments (change) across the organization to deliver the redefined business objectives. The strategy cycle remains a standard cadence (typically annual cycle with 3-year forecast) to provide consistency in how market opportunities are assessed. A major strategic focus continues to be cost reduction as processes are redesigned and workflow is optimized.	Business strategy becomes fluid as companies move away from a traditional annual business planning cycle. Strategy is tied to existing and emerging business capabilities that make strategic objectives real. Strategy becomes both proactive and reactive as it changes at any time to take advantage of opportunities and cost reduction. While the planning horizon remains 3 to 5 years, the strategic focus can change as opportunity is found, changing the vision and long-term strategy.	Change driven by the continuous release of both Hyperautomation platforms and Advanced Technologies which inform the strategic plan. Because the release of these solutions is constant, and any could radically change the strategy and capabilities of the company, strategic planning must be an ongoing activity. The focus shifts to market share increase leveraging Hyperautomation technologies the innovative use of Advanced Technology. Consideration is given to relevance in their market and ways to attract customers.
Strategic Alignment	There is little alignment between continuous improvement and strategy and generally no alignment to business operations. Improvement is: • Investor oriented. • Based on what my boss wants. • Interpret strategy based on my agenda and goals. • My function has a specific role in the organization.	Leadership focused on moving from the current reality to a defined future-state. As transformation begins to encompass operations, IT, organization and user experience, the alignment of goals begins to involve the changes in each of these areas. The focus is on cost reduction through operational streaming.	As most aspects of business operations are interconnected, the alignment of strategy to changes in IT support, problem resolution, people skills and more becomes important to avoid chaos. Change becomes: • Employee oriented. • Customer focus. • A common goal. • Capabilities define what is essential and resources invested accordingly.	Alignment between the four business dimensions becomes critical to determine the impact of any redesign change or response to an opportunity. As strategy fluid at this point in the transformation evolution, it is critical to have the ability to quickly assess what will be impacted and what that impact will be for any change that is considered. • Digital solutions are at the core of constantly re-imagining the business strategy.
Change Capacity	Change is mainly focused on problem resolution, operational efficiency	Companies increasingly expand change focus to business areas,	Transformation is an ongoing process built into the culture. New business	The organization seeks to define and create disruption in the market.

	improvement, cost reduction and profit margin. Projects are generally small, and benefits are evaluated on traditional metrics including return on investment, reacting to competitive threats or external non controllable factors.	process and investing in new differentiating business capabilities. Projects become larger and more critical. Old change approaches now evolve to reflect the scope, complexity, and critical nature of projects as they move from small, targeted improvement to large strategic evolution projects. These transformations affect large parts of the business and the business operation, production operations, people (management and staff), and IT.	concepts, regulations, automation tools, and advanced digital solutions cause a constant questioning of the business direction, products, market, and customer. Fundamental questioning of the operation and what is needed to successfully compete and gain market share as the company adapts. Operations are viewed holistically with consideration for the impact of changes on all business, production, and automation technology support activity.	Assessment and adoption of modern digital platforms (such as iBPM, RPA, AI, Natural Language Processing) and innovative technology use is the core of this transformation stage. Leadership manages company evolution based on continuous evaluation and growth, rather than time based to shift the business operating model. The company constantly evaluates and integrates leading edge digital and Advanced Technology solutions and operational change capabilities and the ongoing redefinition of customer delight.
Differentiation	Competitive differentiation is not a concern at this stage in the change evolution. The company seeks competitive advantage through cost management and periodic product / service updating.	Management recognizes the need to deliver customer and market differentiation through process optimization and customer interaction.	Senior management begins to continuously re-imagine the business operation for improvement along with customer interaction at all contact points and market experience. Product / services roadmaps continuously evolve based on the ability to define the market. This drives operational redesign and IT change as the business operation is reimagined.	By re-defining and constantly disrupting the market, the organization is constantly re-imagining differentiation for the market and customers.
Business Paradigm	Cost Management is the focus of leadership. See: Chapter 6, Business Paradigms: Gaining Marketplace Dominance While EVERYTHING is Changing	Cost reduction begins to share the company's operating focus with revenue and market growth.	Companies actively determine the business paradigm that they will strive to move to as they create plans on creating the ability to operate in that market. For many companies market dominance is accepted as the management focus to lead in your market segment.	Leadership has evolved its thinking and actively define and re-define their marketplace and adjust their plans on moving to the target market paradigm.
Budgeting	An annual budgeting and forecasting cycle is followed.	Transformation is often focused on business areas or functions and is separately budgeted. Technology	Budgeting for transformation is holistic and includes costs for people, process, and technology. Automation	Resources made available as needed based on strategic contribution.

	While larger projects may be separately budgeted, budgeting for improvements is generally a single line item with managers trying to obtain funding for their projects from this fund. Additional initiatives or changes in operational activity may be delayed due to available funds as priorities shift.	costs are often based on a single project justification for a tool or suite of automation tools. This makes all automation acquisition tactical, not strategic.	technology becomes strategic as new, modernized, automation capabilities are built. Budgets are aligned to the transformation evolution plan with cost allocation for a series of Business Function transformations – each with a specific benefit target. Budgeting is multi-year and reevaluated either annually or on a more frequent schedule.	
Fiscal Attitude	Budget is not specific as improvement is often out of single common change fund. Manager operational change activity is not tied to strategy and is based on perceived value. Managers compete for funding of the projects that will help them and benefit their business area.	Incremental spend determined by investment roadmaps begins to align to specific projects based on benefits. These projects will begin to link to provide broad operational transformation level change. Transformation efforts may be hampered by an extreme unwillingness to spend money or use resources as they are still considered to be tactical cost reduction efforts.	Transformation becomes strategic and funding becomes associated with objectives that the transformation will deliver. The funding is often multiyear with allocation to specific business function level increments/ steps/ phases that are tied to the transformation construction.	Funding shifts with evolving strategic transformation needs and the business and automation efforts that support them. Management attitude is flexible and aligned to the acceptance or rejection of transformation needs as automation technologies and Advanced Technologies are released - changing what was anticipated.
Risk Management	Projects are both focused and small. They are also generally inexpensive. Little risk management is considered to be needed. The focus is on efficiency and operation with a culture and mindset that allows for little tolerance for mistakes. As a result, innovation and creativity are not valued. People are managed based on their roles and are only required to learn what is needed for the specific tasks assigned to them.	Transformation projects are large with formal project plans, budgets, staff assignment and targets. Some have built-in risk management techniques and performance measurement. There is little risk management consistency from project to project or from company to company. In some transformations formal methods are added to help control the project. These actions have helped but there is little control between transformation projects and the approach differs by project lead. In others, consultants are brought in to help mitigate risk. However, these projects have a high failure rate when evaluated against expectations.	The move to continuous transformation adds the target of helping deliver strategy to the normal cost reduction and quality improvement goals. However, unless controls are added and enforced and other steps are taken to provide consistency among all the projects in a transformation, the risk of meeting expectations is high. However, it should be noted that few of these projects actually fail as they iterate until the deliverables are correct. Results improve when controlled experimentation is added to help the team innovate. In companies that are highly risk averse this experimentation may be too highly controlled to allow true independent thinking. The projects in these	Focus on outpacing the competition, redefining what is possible and re-imagining the customer experience drives a culture of innovation and controlled experimentation. Risk is managed but innovative ideas are promoted.

			companies will still succeed but the potential benefits will reflect this caution.	
Governance	Project selection and planning is done on an annual cycle, with changes done during the budget cycle to determine how next year's funds will be distributed. This is also driven by long approval procedures for final signoff before work can start. There is little governance over small improvements. The governance is limited to Six Sigma and Lean with automation changes controlled by a version of the agile methodology. Management is usually up to the discretion of the project leads – allowing multiple approaches to be taken. Typically, projects are big bang oriented with results delivered at the end with few interim deliverables. Progress reporting and management is up to the team leader and the client manager and is largely command and control.	Transformation projects are governed by a formal project plan that is built around a formal business project methodology – preferably a business transformation methodology with formal construction steps/phases and formal reporting against progress, and goals. However, the level of detail and the complexity of the governance will vary between business areas and between companies. PMI project management standards and methods are applied to individual transformation projects.	Governance becomes more visible and formal. This level of visibility normally moves progress reporting to senior management visibility. Sponsor and project lead governance is expanded as the approach moves from a single definitive project to a constant rolling group of interrelated projects. Business area and IT governance is applied at milestones in the transformation's construction. Specialized Hyperautomation methods and application construction testing processes are built and applied which drive high collaboration and team work emphasized. Decision making is defined by radical transparency and are driven by data.	Strategy enablement level governance becomes required as well as IT governance over the use of Hyperautomation technology and compliance with IT methodology and use standards. Budget governance is also changed as the transformation budget is both flexible and changing based on approved opportunity directed change. All company specific additions to PMI project management standards apply. Procedures, rules, and decision making continuously evolve to ensure that the strategy and people's capabilities are not unnecessarily constrained.
Metrics	There is little real performance improvement in continuous improvement. Benefits are seldom checked and confirmed on a quarterly or semiannual basis. Performance reporting against goals is inconsistent and generally informal. Performance and flow-related metrics seldom in place for continuous analytics. Sporadic manual measurement of activity is the norm.	Performance management and benefit measurement is often automated around agreed upon standards and measurement algorithms. In addition to normal company metric capabilities, ad hoc and custom reporting is available through the Hyperautomation tools. Automated performance management with intelligent analytics and improved reporting.	New metrics are added which measure the ability to change, the pace of innovation and the acquisition of new markets and customers.	Metrics are constantly re-evaluated to ensure they align with the evolving strategy and shifts in customer relationship.

Operational Transformation Considerations Across the Continuum

As discussed, Operational Transformation is the ability to clearly define and implement efficient and effective business processes to deliver on the customer promise in a flexible highly efficient manner. As an organization matures its ability to transform, its operational capability matures dramatically. In a traditionally managed mindset of incremental change, organizations employ transitional solution methods to solve known problems or challenges. These include but are not limited to Six Sigma, Lean Management, Agile Management, Re-engineering, Total Quality Management, Just-In-Time, Kaizen, Hoshin Planning, Design of Experiments, and Process Excellence.

As capacity to transform matures, operational excellence evolves from incrementalism to a fundamental re-thinking how work and activity should be performed. In the traditional mindset processes, leaders strive for standardization and elimination of process variation. In a Hyper Transformation led organization processes are a means to deliver results. Processes rapidly adapt to changing conditions, be it in product/service delivery, the customer experience, or processing of supporting activities. The application of advanced digital solutions such as artificial Intelligence allows organizations to grant technology the ability to constantly adapt processes within ever evolving rule sets.

Process control and a mentality of risk or failure avoidance evolves across the Transformation Continuum to a point that organizations are focusing on the ability to rapidly adapt processes to an ever-changing environment. A key mantra in evolving your operational capacity is to constantly be asking, "*How can our processes be made more flexible and adaptive, so that we can pivot quickly with the next planned or unplanned change?*" This is the exact question your competition is asking itself every morning as they look to make your organization irrelevant.

In this dimension or perspective of the company, the focus is on operation streamlining, duplication elimination, problem elimination, rules normalization, and outcome consistency in the work and workflow. These business models are the core of all transformation efforts. This is where work gets done. In strategy, the operation is defined from a capability standpoint. In organization, the processes in the operation are staffed and the needed skills are built. In the automation perspective, the focus is on delivering the capabilities identified in the transformation business models and the applications services needed to support them. As a result, it is critical that these business models are comprehensive, correct, detailed, and current. It is also important that these models be supported by information on a wide range of associated information, such as data use, data delivery cadence, volumes, seasonal variations, problem definitions, and skill weaknesses.

The following table outlines in detail the evolution of Operational Transformation across the overall Transformation Continuum and should be used as a reference point. How each aspect of Operational Transformation is defined and evolves across the continuum will be unique for your organization and will need to be adapted accordingly.

Transformation Continuum – The Operational Dimension				
	Incremental Improvement Characteristics	**Business Transformation Characteristics**	**Continuous Business Transformation Characteristics**	**Hyper Transformation Characteristics**
Approach	Projects focus on improving activity level work - problem elimination, small performance improvement, specific small operating changes. There is little or no end-to-end process or performance improvement or large-scale problem resolution. However, in some companies these projects, which are not transformational, can become fairly large as they follow problem causes using a form of root cause analysis. The associated operational work modifications in these projects may or may not be confined to one business area depending on the problem being corrected. These projects usually follow Six Sigma or lean methods and may follow a form or IT's agile.	Improvement projects expand to become process centric or business unit centric as they become transformation projects. At this point projects align business operation streamlining and other changes to strategy and help ready the business operation to deliver strategic operating goals. The projects also morph into future facing, looking at fundamental operation and strategic changes to increase the company's ability to compete. Cost reduction, performance improvement and large-scale problem resolution are generally goals. The approach taken in these projects now starts with the detailed interviewing of managers and staff in the target business area(s) and the creation or updating of comprehensive business models. Rules and problems are clearly	Regulatory, industry, customer, technology, and other change drivers have become a constant demand to change business activity and operations. In the past, these projects were handled separately with unique goals that can conflict hurting the overall impact of changes on the company's effectiveness and efficiency. Transformation efforts are conducted through a series of interrelated projects that each have a specific purpose and contribute specific information in the analysis or new operating design. Teams now question everything, affecting all aspects of the business. At this point management of these projects becomes centralized with a view to how they all combine change process or end-to-end operations. Problem resolution moves to solutions that look at all the groups that are impacted by the problem and care is taken to avoid negative	The advent of the Hyperautomation technologies and their constant capability increases caused a need for extreme flexibility in companies' ability to change significantly - fast. The Hyperautomation technology platforms support this rapid business change model and capability evolution which, along with Advanced Technology evolution, drives continuous Hyper Transformation. Transformation is now tied to, and driven by, Hyperautomation capabilities that may change the company's strategy, business model, automation needs, approach to improving its market position and more. Strategy drives business operating change and Digital Transformation as IT responds to business capability needs. The move to this level of transformation ties company vision, strategy, future operating capability

		defined, and problems eliminated in the new operating design. Solutions are defined and modeled within the current automation capabilities of the company.	impact to any business area's operation. Change becomes a continuous evolution.	identification, to process and Digital Transformation along with organization change as companies continuously evolve.
Core Mgt Method	In continuous incremental improvement the organization remains focused on performance measurement and evolving improvement through a series of small projects which each deliver some change and benefit. The belief is that over time, this will evolve the operation into an optimal state. These projects are small and involve the application of discrete methodologies designed to improve efficiency and effectiveness. These include but are not limited to Six Sigma, Lean Six Sigma, Total Quality Management, Just-In-Time, Kaizen, Hoshin Planning, Design of Experiments, and Process Excellence.	Business Process Reengineering (BPR), Business Process Management (BPM), BPM tool suites (BPMS), Decision Support Systems (DSS), Intelligent Business Process Management (iBPM) and all automation technology available to the company. To control the use of these tools, other change methods including, Waterfall, Agile, Wagle (combination of Waterfall and Agile) are added to the management support mix. Project planning becomes formal using tools like Microsoft Project.	The transformation project methodologies morph at this point to include techniques and tools that support continuous change. These include performance management, simulation, workflow analytics, advanced project management systems. Advanced algorithms are added to predictive analysis and decision making to move to automated inference and action recommendation - changing how operational decision making is performed.	The key in differentiating companies will be their use of Hyperautomation and Advanced Technology to change the way the company approaches business and leverages managers and staff to find operational improvement and to innovate. The biggest operational change will be in the promotion of creativity and innovation in product, operations, and customer interaction. The methods to do this are the same as in Continuous Business Transformation. The addition of the new tools and capabilities available through these new hyper capabilities will change how the business is managed and the tools and analytics are leveraged to track improvement, industry change, competition's innovation and both current and new capabilities.
Focus	Aggressive pursuit of discrete projects to incrementally improve business operations and revenue growth.	End-to-end Process management and optimization through the alignment of vision, strategy, capability, process, Digital Transformation, and organization/skills. Focus is on cost reduction and profitability.	Re-define rules and decision-making protocols to streamline workflow and improve consistency. Creation of feedback loops in the processes to keep process and business area operational. Focus is on market share and product acceptance through customer interaction differentiation. Change is organized and promotes success.	The focus in Hyper Transformation is on the leveraging of new automation and Advanced Technology to innovate and to gain market share. By-products of this focus are revenue increase, customer loyalty, improved success probability, and cost reduction.

Organizational Transformation Considerations Across the Continuum

As discussed, Organizational Transformation is the ability to clearly define and implement a structure that enables leadership and people to work together effectively, while harnessing the implicit innovative capabilities that reside in all people. As an organization matures its ability to transform, its organizational capability matures dramatically. In a traditionally managed mindset of Change Management, organizations employ people to deliver specific tasks and activities. Jobs are tightly defined, expectations of activity clearly established, and everyone knows they are a cog in the larger system.

As capacity to transform matures, organizational adaptability evolves from activity focused on delivering value and results to meet manager and organization performance goals to an operating environment where people have a hand in reimagining and redefining both goals and performance. Traditional functional structures give way to value streams and capability-based organization designs that inherently adapt while focusing resources on capability gaps. In a Hyper Transformation mindset, everyone from the CEO to the newest hired intern understands what they must "do" to contribute to and deliver on the overall strategy. Everyone also understands the impact on the company of not meeting their personal goals. Metrics are based on determining transformation project results, the value of each Hyperautomation project, and the impact of innovation. These projects are tightly coupled to continuously evolving strategic objectives.

A recognition emerges that people are no longer "cogs in the system" but constantly evolving and learning beings that seek to contribute in new ways and are not satisfied with barriers, bureaucracy, behaviors, or decisions that get in the way of change and disruption. This represents a value-based view of knowledge workers in the company and moves organization management away from looking at people as a cost or balance sheet liability. In this future, business operation skills and competency are critical to success and should be considered as an asset. In fact, we believe that in the future people are assessed and rewarded for creating operational and product disruptions as leaders recognize that if market disruption is not created internally, it will be created externally as the competition jumps ahead of the company with innovative capabilities and impacts market share.

Additionally, the notion of structure, which defines how people live in well-defined boxes with titles and job descriptions fades as Hyperautomation solutions eliminates repetitive work and standardized decision making. For other jobs, these capabilities will help leadership recognize that people are best suited to getting things done in a constantly shifting and evolving environment. Organization structure and hierarchy give way to self-creating and dissolving teams based on what needs to get done. Prioritization and resource allocation is based on constantly assessing and maturing capabilities that are essential to achieving strategic objectives.

Traditional budgeting and Return on Investment (ROI) project planning become obsolete as building the next essential capability becomes an organization-wide focus.

The following table outlines in detail the evolution of Organizational Transformation across the overall Transformation Continuum and should be used as a reference point. How each aspect of Organizational Transformation is defined and evolves across the continuum will be unique for your organization and will need to be adapted accordingly.

Transformation Continuum – The Organizational Dimension			
	Incremental Improvement Characteristics	**Business Transformation Characteristics**	**Continuous Business Transformation Characteristics**	**Hyper Transformation Characteristics**

	Incremental Improvement Characteristics	**Business Transformation Characteristics**	**Continuous Business Transformation Characteristics**	**Hyper Transformation Characteristics**
People	• Focusing on individual performance. • Individual activity / performance. • Roles optimized for cost / efficiency. • Individual ownership for activity, pointing blame for failure. • Accumulation of power and authority (formal and informal). • Deep skills within specific areas.	• Teams incented based on achieving pre-determined goals. • Leaders seek increasing power in the transformed future-state. • Teams formed to drive change. • Results rule.	• Team-based performance within the scope of the business objectives. • Team work. • Collective ownership. • Empowered team.	• People are subject matter experts and holistic thinkers.
Structure	• Functional, silo-based structure, task delivery focus. • Mechanical and cumbersome organizational structure. • Job title defines role and authority. • Experience and seniority grant authority. • Projects define activity and endure. • People 'assigned' jobs based on management and structure.	• End-to-end processes are defined based on customer experience. • Hand offs are minimized. • Silos shift from functional disciplines to capability based. • Individuals rewarded with lateral opportunities as levels are reduced. • Matrix team structures places individuals on multiple projects.	• Team-based structure, combining different competencies, value delivery focus. • A living organization structure that shifts with the company's strategy. • Employment entitles you to participate as far as your skills allow. • Experience and contribution ensure participation. • Teams assemble and stop quickly. • People sought out based on skills, work on multiple projects.	• Adaptability and flexibility define all aspects of the operating model and organization structure. • Individuals come together to create new teams and projects that build needed new capabilities while maturing others. • Experience and execution are highly valued and allow individuals to add value in a variety of new ways as the organization constantly shifts and morphs.

Culture	• Little engagement of large numbers of people in correcting issues. • Highly trained Six Sigma and Lean specialists. • Save companies large sum of money.	• Company senior management becomes committed to operational improvement and transformation. • Culture is beginning to evolve. • Managers are paying more attention to results than activity. • Metrics are aligned with business objectives. • Innovation is sporadic as people are more concerned about cost reduction than experimentation and innovation. • Training is an issue and there is a minimal ability to leverage legacy IT applications and data to transform the operation and support a new business design.	• The culture shifts to a success-based transformation following incremental experimentation as new technologies are added to the IT tools to address specific needs – such as RPA for fairly simple, high volume repetitive manual tasks. • The broad culture shift to move knowledge worker specialists into transformation disciplines begins at this level of understanding. • The organization model begins to change as the company becomes focused on specialized skills and work is divided among multi-location and possibly multi-national locations that each specialize - dividing work to different specialist locations.	• Innovation and experimentation are the norm as all people are constantly looking for new ways to apply emerging technologies across all aspect of the organization while at the same time redefining the customer experience. • The knowledge workers focus on specialization and skill development to support innovations and continuous major operating changes based on emerging Hyperautomation capabilities.
Learning	• People are trained for the specific role or task they are accountable for. • The goal is to build experts with specific skill sets.	• Investments in people are based on differentially rewarding "high potential" employees with additional training or education. • Training tends to focus on improvement of management and / or leadership skills. • Business skills are needed but so are expert-level automation skills and transformation skills. These should vary from the current mix because of the high project failure rate. • All members of transformation teams should share a common core of overlapping skills that will help everyone to understand one another and the projects. • Competency models evolve to include Business Acumen, Leadership, Technical and Industry experience and define a career path that can be both lateral and upward.	• Appropriate managers and staff are trained in business and Digital Transformation - and in the capabilities of current and Hyperautomation tools. • People are recognized as highly valuable assets across the organization. They are encouraged, and funding is provided, to continuously expand and upskill. • Value is defined by how many different skills and experiences individuals have so that they can grow and shift as the organization evolves. • As the organization must align to the strategy, process needs and automation capabilities and support, it is important the companies recognize aptitude in different competencies and leverage these aptitudes to create highly skilled knowledge workers.	• Managers and senior professionals will learn the advanced Hyper Transformation approaches, methods, techniques, and skills. • People are incented to constantly learn about and understand how to integrate new digital and technology advancements into future-state redesigns and into all operating changes in the future as the business continues to change. • Learning is constant and people are measured based on new skills and capabilities that have been acquired and demonstrated. • Company Advanced Technology teams and Hyperautomation teams will continually update the transformation staff on new capabilities and industry innovations so the teams can leverage these new capabilities in future-state operating model changes.

		• The creation of internal experts in legacy IT capabilities, Business Transformation and Digital Transformation is needed to promote consistent success.		

Digital Transformation Considerations Across the Continuum

Digital Transformation has begun in many companies, but what is being done differs widely. Some look at Digital Transformation as the implementation of a software platform and some as the integration of an automation tool such as RPA. Still others look at it as "going paperless." And the list goes on and on. So, the place to begin is to define Digital Transformation and the way it will be viewed in this book.

Because its basic meaning is so diverse, it really can mean anything. So, putting a stake in the ground, we look at Digital Transformation as the fundamental rethinking of the role of IT in the company and how it can best support corporate strategy. Based on this role definition, Digital Transformation involves the planned evolution of all aspects of IT operations – from infrastructure to the hardware. This includes the technical design for how all hardware, operating system software, middleware, and special purpose tools fit together to support the applications that are used, and the way data is handled as IT moves from legacy operations to a modernized operation designed to deliver critical business capabilities – now and in the future.

We believe Hyper Transformation is really an opportunity to modernize automation and remove the legacy technology anchor that is holding many companies back. We look at Digital Transformation as the rethinking of IT and its services in companies. It is essentially starting over with today's concepts, needs, and technology. The advantage is lower total cost of ownership, lower automation costs, more streamlined business operation, and the ability to react fast to opportunity.

Many will now want to stop here and say this is not feasible – especially technical people. This takes most technical people out of their comfort zone. These people would vote to go back to the same approaches that they are used to – the ones that are delivering

over a 70% failure rate. The main reason is the projected cost of this transformation. The secondary reason is disruption to every part of the current IT operation. Both are valid concerns. Both are also manageable given the capabilities Hyperautomation platforms offer – beyond simply generating applications. For example, iBPM platforms can be used as a type of solution communication bus that controls the use and timing of all applications in the transformed operation. This requires creativity and the creation of API-based interfaces to each of these applications.

But change is uncomfortable and to many it is threatening. However, to some it is exciting and a chance to expand their knowledge and skills to deliver greater goals. In reality, both groups must be accommodated in any transformation. This is a key reason for proactive expectation management.

So, the old ways are really not the best ways any longer. The internet abounds with reasons for these Digital Transformation failures, but our experiences show that the main reasons are the isolation of Digital Transformation and a failure to drive these transformations from a larger Business Transformation initiative – tying Digital Transformation to business strategy, the future-state strategic business model and its capability requirements, and to the needs of the new future-state process models for the business areas being transformed. However, as stated earlier, the Hyperautomation technology works. The problem is with execution and expectation management. Both can be easily corrected with training, experience, the use of the right methodology, and the right techniques.

Digital Transformation history clearly shows that isolated efforts do not produce a new IT capability and they seldom address legacy applications. The foundation for the Digital Transformation problems is that many, if not most, IT management roles and IT operations were inherited as older CIOs have left. These operations are seldom either architected and/or modernized – being a conglomeration of individually best of breed solutions to problems or needs that really don't fit together well or work well with one another. Data flow and transformation is often somewhat of a mystery and legacy applications are a patchwork of inefficient and inflexible programs that according to business managers seldom really meet their needs. But there are hundreds of millions of dollars invested in these aging infrastructures, architectures, tools, and applications and many senior managers don't want to even think about spending the money to actually transform IT or the operations. That should probably be rethought given the fact that companies in the not-too-distant future will be built around automation capabilities.

Strategy-driven Digital Transformation creates an evolving plan that aligns to the overall Business Transformation – defining and delivering the capabilities that will be needed and when they will be needed. It also supports the evolution away from legacy technology, approaches, and applications – allowing current modern components like Cloud Computing and Cloud use to be used in the overall design of the future digital support capability.

This approach allows the elimination of legacy IT as an evolution over a time frame that is strategic, minimally disruptive, and affordable. It also allows each step in the transformation to deliver specific measurable results that in turn deliver specifically measurable business capabilities – when they are needed. In this way IT, and business managers, will have visibility into "the what, when, and why" of any individual action in the joint evolution of IT and business operation.

The result of this strategy-driven approach, combined with the integration of automation services with company-wide and specific capability needs, provides a very different view of what Digital Transformation is all about and how it should be approached.

The following table outlines in detail the evolution of Digital Transformation across the overall Transformation Continuum and should be used as a reference point. How each aspect of Digital Transformation is defined and evolves across the continuum will be unique for your organization and will need to be adapted accordingly.

Transformation Continuum – The Digital Dimension				
	Incremental Improvement Characteristics	**Business Transformation Characteristics**	**Continuous Business Transformation Characteristics**	**Hyper Transformation Characteristics**
Digital Solutions	Digital Transformation is not a goal of continuous improvement and is not considered. Small new application solutions or improvements to existing applications are considered in these projects. New digital solutions are evaluated, and, over time, aspects adopted to reduce cost, reduce error, improve workflow, and ensure competitive parity.	Today most Digital Transformation efforts are stand-alone, and it is possible for companies to be working on multiple separate digital solutions to individual transformation efforts. Because there is little control of capabilities between these efforts, the application solutions can overlap and potentially conflict. Because the current approach separates Business Transformation from Digital Transformation, it is possible to acquire application development tools that do not really fit and do not provide anticipated business value.	Business capability-driven digital strategy is aligned to the company vision and the future-state strategic operating model. This ties all transformation activity together and aligns them to delivering company strategic goals. Most notably, this allows the transformation efforts to drive a combined perspective and solution capability to deliver a competitive advantage. This combined perspective and its advantages are the reason for the My Career Transformation approach with its four-dimension perspective and its	Digital capabilities define what changes are possible as both Hyperautomation platforms and Advanced Technology capabilities are a key foundation concept of Hyper Transformation. Constant evaluation of how emerging and nascent digital capabilities could provide differentiation is key to capability directed innovation. Hyperautomation-based Hyper Transformation assumes a capability based Digital Transformation in the early stages of the transformation redesign construction.

			collaboration between the six architects of transformation discussed later in this book. The digital operating strategy drives Digital Transformation with major digital changes aligned to Business Transformation needs and timing.	Current and emerging Hyperautomation tools and the Advanced Technologies that are released support a constant reevaluation of the business and a rethinking of how the company can gain market share. At times, these new capabilities drive a rethinking of the IT operation and results in Digital Transformation. This is based on the release of new capabilities that can be used to fundamentally change the company and/or its direction.
Automation	Automation is only a consideration at this stage in that it fails to support the business operation. This may require the creation of new applications in either legacy or Hyperautomation platforms or specific capability addition to computer programs. Data quality and availability is also often poorly controlled at this stage in the evolution of digital change.	Modern technologies provide capabilities that allow management to re-think operations and how it could work if transformed a certain way. These automation technologies include BPMS, RPA and robotics and many others. Some Hyperautomation platforms may be present in the company but are used with mixed results. Legacy applications and the IT infrastructure are often constraints at this stage in the change evolution. At this point in the evolution of transformation, Business and Digital Transformation are most often totally separate efforts.	Greater attention is paid to the replacement of legacy platforms and applications as the current solutions limit what can be done to improve the company. Because the transformation efforts in the company are continuous, the acquisition of automation technology shifts to providing tools and capabilities that will be used for multiple new solutions. This will require IT infrastructure redesign and architecture review and modification - as new Hyperautomation platforms and Advanced Technology are acquired and implemented.	The focus on Hyperautomation and Advanced Technology drives a need to reconsider the way transformation is done and supported in the company. It is also necessary to consider the acquisition of any Hyperautomation tool and every solution in light of its current and potential impact. It is recommended that Hyperautomation tool versions be kept up-to-date and that the transformation professionals in the company be kept up-to-date on all interface capabilities and restrictions.
Business Transformation Platforms	The focus in automation is on making small improvements to existing applications.	New Hyperautomation multi tool platforms are often acquired for specific new applications development efforts during transformations – use of these tools is generally not well controlled and their success rate is an issue.	Given the need for multiple integrated Hyperautomation tools to enable flexible automation change, the commitment becomes strategic as the platform will be used for multiple transformation projects.	Hyperautomation tool platforms become a strategic buy as the IT architecture prepares to move into the new approach to application development; all new application development will occur in the company's newly transforming Hyperautomation development environment.

Technology Enablement (Infrastructure)	The technology footprint of an organization is evaluated based on its cost, capabilities, and ability to fit into the current technology environment. Many automation tools can be made to fit, but many of these integrations slow processing, introduce error, and add complexity. All combine to slow automation support and increase the total cost of ownership.	The legacy infrastructure continues to be used with little change at this point in the evolution of the change capabilities and approach. Hyperautomation or Advanced Technology tools may be acquired but will not be well integrated into the current automation technology architecture. Because this new technology will be unfamiliar, it should not be used for a critical application or to provide important capabilities.	Technology enablement is key to Continuous Business Transformation. It is the foundation for rapid change and the ability to manage all transformation in a central point in the company. However, few companies have these automation capabilities, and many will need to take the time to look at low to no code Hyperautomation packages, with iBPM and RPA platforms and the ability to tie into AI and other technologies. As not all of these packages will be needed, companies will start with the capabilities that will deliver the greatest immediate benefit to Continuous Business Transformation as multiple separate transformation efforts in the company are tied to an overall capability transformation framework. This will drive a rethinking of past Digital Transformation plans and designs.	The focus on Hyperautomation and Advanced Technology drives a need to reconsider the way transformation is done and supported in the company. It is also necessary to consider the acquisition of every Hyperautomation tool and every constantly change to legacy applications.

Chapter 4: Architecting Your Transformation

Skill Gap

Business Transformation becomes both continuous and invasive forcing companies to reevaluate every part of a process or the entire company. These changes, in turn, require a reskilling of knowledge workers and retraining of operations staff to leverage new applications and procedures in their jobs.

The acronym list for the items in the "Automation Technology Skill Changes Due to Hyperautomation" table below:

- Intelligent Business Process Management Suite (iBPMS)
- Decision Support (DS)
- Robotic Process Automation (RPA)
- Natural Language Processing (NLP)
- Machine Learning (ML)
- Cognitive Computing (CC)
- Intelligent Automation (IA)
- Artificial Intelligence (AI)
- Conversational Artificial Intelligence (CAI)

Note: The skills in this table do not represent all the skills that could be needed or all that are becoming obsolete or replaced by automation. They are rather a representative sample that will change as the list is adjusted to each individual company and their environments.

Note: The skills in this list are critical to the operation of the company.

Skill Changes Due to Hyperautomation

Skills Becoming Obsolete	New Skills That Are Needed	Role Affected
Legacy Computer Programming including Cobol, PL/1, Fortran, C, C++ And Java	Application definition and generation using Hyperautomation platforms – iBPMS, RPA, AI, DS, NLP, ML, CC, IA. These platforms do not use code as in traditional programs. The Application Developers write a type of symbol-based pseudo code that must be learned – the application development is really defining the new business operation in models. The symbols and their placement in the models are translated into programs eliminating a majority of the manual program coding.	Application Developers, Data Architects.
Requirements Definition	There are two basic categories of requirements – general requirements that apply to every situation and every application, and situation or activity specific action or execution requirements.	Business Analysts and Applications Developers.

	In legacy application development, requirements are identified in discussions with business managers and users and through reviewing documentation and procedures/standards/constraints and rules. These sources of information are really interpretive, and the exact interpretation is generally left to the understanding gained by the application developer. In the new application technology of the Hyperautomation tools, requirements are built into the models in these new application development platforms. They may or may not be converted into written form from the models as additional information is added to further define the requirements. The models give the requirements and application systems business context. This model-based requirements identification is the foundation. To these skills, the transformation professional must add Hyperautomation platform use competencies, user experience design skills and data management skills.	
Rules Definition and Manual Process Modeling	Rules are coded for entry into these new platform's specialized rules libraries. However, while rules are everywhere in any business, most are unwritten and interpretive. Also, the rules libraries in the different Hyperautomation tools are each unique to that tool platform. This requires specialized skills that allow the business and process analysts to identify, understand, define, and code rules into specialized libraries for ongoing use by the company's Hyperautomation tools.	Business Team Members, Business Process Professionals, Business Architects, IT Application Developers.
Program Architecture	Applications in the future will be supported by a combination of general and specialized systems. All must align to activity and workflow, and all must be designed to work together as an operation solution. This is the framework for the new solution's program(s). It controls the order that they are executed in, the data use and flow, and what passes between application – and when. This architecture design is quite different in Hyperautomation tools. Defining and designing these unique architectures for different solutions based on the Hyperautomation tool or tools and their capabilities requires an in-depth knowledge of the tools, their interface environments, their data handling capabilities, and their application architecture design in this new automation environment.	Business Architects, Digital Architects, Applications Developers.
Project Planning and Management	Past methods are becoming absorbed into new Business Transformation methods that address strategy, process transformation and Digital Transformation. The move to the new approaches and their project guidance is changing with the new automation technology. New methods, techniques and skills related to the Hyperautomation platforms in the company need to be learned.	Project Managers, Sponsors.
Manual Operating Tasks with Clerical Skills	Much of the work that is done today is repetitive, rules centric, and manual. This will be largely automated removing the need for unskilled people.	Low Skilled Staff and Their Managers.
Collaboration as Practiced in Many Companies	The old approach to collaboration will be replaced with cooperative collaboration where all collaborative team members focus on the common goal of improving the operation's work. For many, this represents a cultural shift – mixing the good of the company with the good of different business areas. Collaborative team members provide differing perspectives and are committed and supportive of this goal. All members of each collaborative group will need to develop an understanding of how the Hyperautomation platforms the company use, function and what each	Business Managers.

	is capable of creating. Because each member of a collaborative team must help guide the content and capabilities of the solution, it is important that each has the Business Transformation management skills to take an active role in defining the future vision for the operation – with compliance changes, rules changes, future-state requirements and test certification.	

Achieving the speed of change that will be necessary to stay competitive is about to create a serious investment problem for many companies that have largely allowed their automation function to stagnate. Keeping up will actually be impossible – it will simply be outside of the reach of most companies. However, this does not diminish the need for Hyper Transformation. It does, however, mean that companies will need to architect the combined business/technology environment and stay as much as possible within families of products that work in harmony. Of course, it also means that companies will need to stay up-to-date on releases of their Hyperautomation tools to obtain newly released capabilities. In this way, as automation tool vendors move from low code to no code to automated code generation, the company will be able to make the changes with minimal impact. In a lot of ways, this changes the "best of breed" philosophy of the past to the "tool suites" that will best support the company's vision of the future while harmonizing with the other technologies that are being used.

As has been noted, this continuous skill updating requires both an upskilling of knowledge-workers and a discipline of continuous training for everyone.

Specialization, Generalization, and Collaboration

For many of these people, the future will represent a continuing relationship with skill development as they morph into special architect-level roles. This will be necessary to stay current as the underlying Hyperautomation and Advanced Technologies evolve. These people must become highly experienced and understand their area of expertise at a detailed level. In Hyper Transformation governance and innovation, teams will report to these architects who will guide cooperative collaboration committees.

From experience, we have found that single perspective approaches simply don't work in Business Transformation. They do not consider all information, knowledge, insight, and unbiased views that must be included to understand the business operation and its support. The fact is that teams from one group are often blind to problems and constraints they don't understand or that don't affect them. Also, there is a tendency in many teams to downplay issues that are caused by their group.

But while these issues are often at play, the biggest issue is the background to understand what the team is looking at and the insight needed to extrapolate and infer from what they are seeing. To offset these issues, we recommend a collaborative operational analysis team be

used in the work and workflow discovery and analysis activities, and that this same team be the core of the redesign team. This provides the collective perspectives and discipline backgrounds needed to drive innovation.

On projects, we include six unique architectural disciplines which are responsible for the planning, design, and implementation of Continuous Hyper Transformation. They provide the insight needed to fully understand the business operation and determine what must change to deliver the capabilities needed to support strategy and improve both effectiveness and efficiency as the company transforms. These architects are shown in the illustration below.

Transformation Architect	Designs & Executes Continuous Transformation of the Business

Business Architect	Experience Architect	Process Architect	Organization Architect	Technology Architect
Translates Strategy into Business Outcomes	Designs & Implements User Experience	Designs & Implements Business Processes	Designs & Implements Organization Change	Designs & Implements Technology Change

Each of these disciplines contributes in a different way – although there is planned overlap and collaboration across each. In addition, we believe that each of these disciplines is vital to any organization, regardless of size or industry. Smaller organizations may not have a person with each of these titles, but the role and responsibilities, as well as key activities and deliverables need to be considered regardless of the size and complexity of your organization.

> **Transformation Architect** - Experience in each of the five other disciplines and in Business Transformation is essential to this role. This architect will understand and have firsthand experience in what transformation requires, what it does, how these projects are performed, transformation project planning, management, solution development, solution construction (including effective legacy and Hyperautomation application construction, retraining people to use the new solution successfully, delivery of successful Business Transformation projects and finally measuring results to expectations). As part of their role in leading the transformation, these architects are responsible for budget, staffing identification, and the design of the transformation evolution plan and its execution.

> While most people will be required full time in any transformation, we also find that at times the architects from different disciplines may be applied on a part-time basis and that the disciplines they represent may be deployed at different times. Balancing this staffing

requirement is key to all parts of the transformation project and increases as you move along the Transformation Continuum.

Business Architect - Accountable for planning through execution. Beginning with the identification and definition of a new or modified vision of the future as the Hyperautomation capabilities change and using it to ensure leadership is aligned around a compelling and differentiated business strategy and business model. Clear objectives are defined and communicated from the CEO to the newest hired intern – aligning all to the vision and strategy of the company. With objectives defined, the Business Architect determines the capabilities required to deliver strategy through the future strategic business model and where gaps exist in capabilities – what is needed to fill them. In doing this, they work across the organization to create and implement an evolving investment roadmap to close and mature capability gaps that align with the overall strategy. Finally, the Business Architect will work across the architectural disciplines to define and refine a constantly evolving operating model to deliver operations excellence.

Experience Architect - Comparable to a User Experience (UX) Architect. Usability is a key part of any Business Transformation. A common goal is efficiency which requires easy to use, effective applications that actually support the different functions in a business operation. It is critical for internal company people (who use the solutions that will be built) to believe that the solution's applications actually help them do their jobs better and faster – with few to no errors. It is even more critical that customers find any type of interaction with the company easy, non-stressful, fast, and intuitive – ready for any situation within the scope of the business area.

Process Architect - The first requirement of any process is that it must support the capabilities defined by strategy for the business functions they support. This is true for today as the transformation evolves, and in the final strategic business operating model. The Process Architect is responsible for operation design and business execution effectiveness and efficiency. These architects must be familiar with Business Transformation methodologies and application methodologies used in the company. They must also have a broad understanding of both legacy and Hyperautomation tools, concepts and techniques and be able to lead multi-project business operation transformation redesign and performance optimization activities. Finally, the Process Architect is responsible for the design of a flexible business operating model that is fast, effective, inexpensive, and low risk. The Process Architect also works with IT to build the applications needed to support the new business operation.

Organization Architect - The organization will likely change as the company evolves toward its final solution model. In addition to the overall organization structure and multi-location interaction and staffing models, this architect will be responsible for the skill development of the business areas affected in any phase of the transformation development. This architect will work with other architects to identify the best operating structure, staff

model, and training schedule. The Organization Architect will also work with others to design and create a comprehensive training model for the pre- and post-transformation training programs.

Technology Architect - This can be multiple people representing automation (Hyperautomation platforms and legacy applications/infrastructure), and specialists in the Advanced Technology (solar, battery, sensors, autonomous vehicle) that may be used in the new business operation and the ongoing release of new Advanced Technologies and their capabilities. This architect is responsible for redesigning the IT infrastructure, its operating tool mix, its performance, its network design, and its integration of legacy and Hyperautomation platforms as the company evolves and sunsets the old legacy hardware, operating software, and applications. In addition, this role provides insight into the current digital capabilities, constraints, problems, backlogs, applications inventory with information on the status of each application; data accuracy, location, problems; hardware issues and limitations, and current and planned software tool availability.
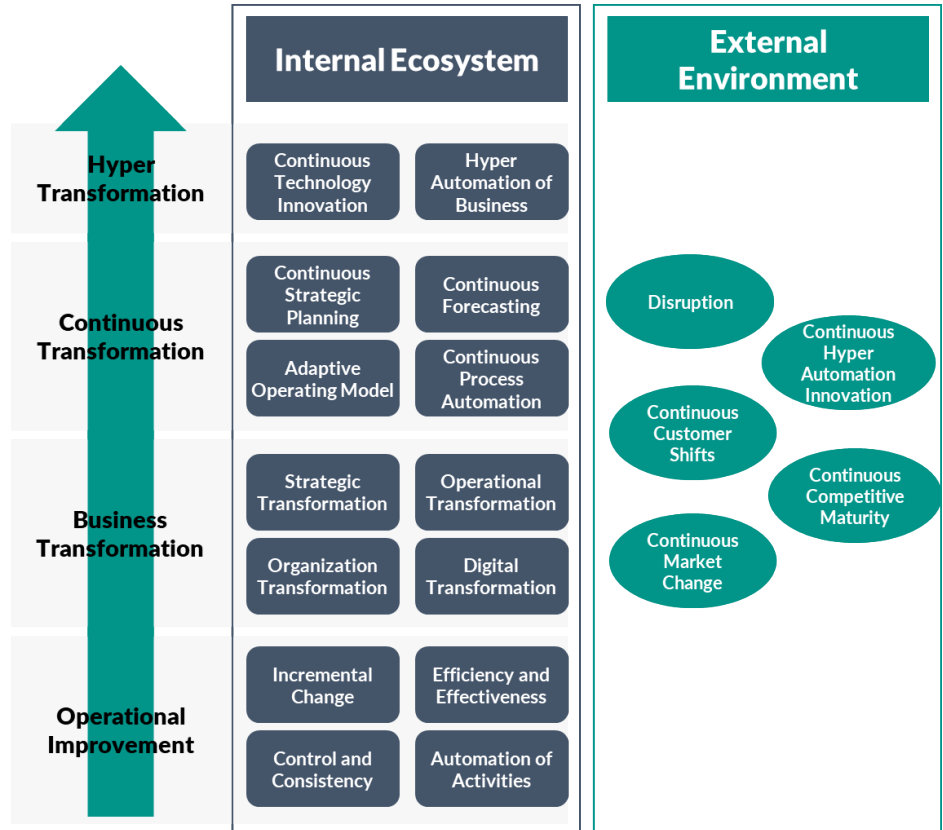
For additional detail on the Six Architects of Transformation see: "Chapter 7: Architects of Transformation – Defining, Planning, and Implementing Your Transformation Agenda."

A Constantly Evolving Ecosystem

When starting to think about the maturing and evolving discipline of Transformation, coupled with both Hyperautomation and technology advancement, as well as the constant shifts and disruption in the external environment, it helps to visualize the relationships between the major components.

In the following illustration, we demonstrate how transformation evolves in a constantly changing competitive and disruptive external environment. Today, most companies have leveraged continuous improvement and its Lean and Six Sigma disciplines to take corrective action throughout their operations. These Operational Improvement projects have delivered significant savings and have generally delivered results that have been considered to be successful. However, as with any narrowly focused change, they have also often caused problems in areas around the change as others have had to adjust to workflow and other changes. And, while financially beneficial, these projects have reduced or eliminated the elasticity of many operations and their ability to respond to opportunity in a constantly changing competitive and disruptive external environment.

This observation is not meant to indicate that either Lean or Six Sigma should not be used. It is rather advocating a somewhat different use of these valuable disciplines as companies move into Continuous Business Transformation and then on to Hyper Transformation. This role is focused on performance monitoring and how it can be imbedded into any new business operation design and construction. The information that is collected through this measurement process can in turn feed a variety of analytics – including inference analysis and predictive analytics. In this role, the Six Sigma statistical analysis can be used to point to both existing and emerging problems with lean principles looking at options in dealing with these performance problems.

Internal Ecosystem		External Environment
Hyper Transformation	Continuous Technology Innovation / Hyper Automation of Business	
Continuous Transformation	Continuous Strategic Planning / Continuous Forecasting / Adaptive Operating Model / Continuous Process Automation	Disruption / Continuous Hyper Automation Innovation / Continuous Customer Shifts / Continuous Competitive Maturity / Continuous Market Change
Business Transformation	Strategic Transformation / Operational Transformation / Organization Transformation / Digital Transformation	
Operational Improvement	Incremental Change / Efficiency and Effectiveness / Control and Consistency / Automation of Activities	

We believe that both knowledge and skills/expertise have value and while some people may be replaced by automation, knowledge workers and those who make decisions should not be targets for "downsizing." In addition, strategically, we have found that many people have critical unwritten knowledge on decision making, rules, rule interpretation, and the reasons for transaction rejection during straight-through automated processing. So, as work is automated, we urge companies to carefully consider who will be replaced and what will be lost in each staff elimination.

New Perspective on Change

Continuous Improvement and its narrow scope have expanded to Business and Digital Transformation and adopted its new perspective on change. Everything is now open to questioning. All parts of any operation in scope are now open to modification. The objective now shifts from problem elimination and limited improvement to a fundamental rethinking of the business operation, what it is supposed to deliver, and who will you sell it to. The IT operation is also now included in the scope of these changes. However, we have also seen

where each project is able to select their own automation tools as long as the ROI is there. Where this happens, the new technologies are added to the old legacy applications inventories and the hardware infrastructure. These additions generally follow a "best of breed" selection process that results in multiple different types of the same product class being licensed for different application projects. We have been in multiple companies where three or more BPMS tools have been put in place, creating chaos within both IT and the process communities.

Unfortunately, in many companies these additions over time have eliminated the original technology architecture as new hardware, middleware, and applications are interfaced to the old technology. The result is a murky computer technology architecture and a highly-complex group of licensed and custom-built applications that work together over custom interfaces – making any changes to applications extremely risky and increasing the cost of ownership while decreasing the potential for success.

However, great strides forward have been made through the advances in approach that defined Business and Digital Transformation. And benefit began to change from staff reduction to an improved ability to compete, and a marriage between business operations and automation. Approaches and techniques also evolved as part of a recognition that older business and IT approaches and methods were no longer adequate. For example, to deal with the complexity of full Business Transformation, it was necessary to merge Waterfall and Agile methods, and then modify the resulting method to allow for the way business design, definition, data, and rules work in the new Hyperautomation application development platforms.

Evolution of Transformation

As continuous improvement morphed into Business Transformation, companies evolved further to accommodate the speed of change due to a constant release of legislative requirements, a Pandemic, online buying pattern shifts, remote working needs, and touchless service. But this move was not as well defined as Continuous Improvement had been and it did not have a foundation discipline like Six Sigma. That allowed Business Transformation to become something different to most managers and a unique approach in most companies. Unfortunately, the concept and its approaches were widely misunderstood and failure rates, defined as failing to meet expectations, was high. Over the last several years, enough had been learned to get it right but the constant advance of BPMS, RPA, and other Hyperautomation technologies caused both the approaches and the application development to change – moving from a more traditional approach to a "low code" and soon a "no code" application development approach.

But given the scope of transformation projects, it became impossible to build a new business operation in one "big bang" release. That just didn't work. While the industry was grappling

with these issues, the vendors kept evolving their products, and new capabilities were released. This caused a constant stream of new capabilities that companies needed to look at as they tried to adjust to the constant release of new legislative, market, and other requirements. In fact, these change requirements have become so frequent that Business Transformation moved to continuous Business Transformation and a whole new set of approaches evolved.

The move to Hyperautomation tools and their popularity is now driving a new round of transformation and their continual capability increase to become a constant activity. Of course, what became "Hyperautomation tools" played its role in this evolution of change. Throughout this business operation and change demand evolution, the Hyperautomation tools kept evolving to become capability-rich.

With the advent of a commitment to both new automation and Advanced Technology to drive competitive differentiation and operational evolution, the next and most current type of transformation was born. This is Hyperautomation-driven transformation. It is continuous and highly invasive. And it is on track to change everything in our lives.

The change drivers of the past have also evolved with the addition of:

- Disruption
- Continuous Hyperautomation-Based Innovation
- Constant Customer Shifts
- Continuous Competitive Maturity
- Constant Market Changes
- Advanced Technical Releases
- Asynchronous Competition
- Skill Obsolescence
- Collapse Of Legacy Automation

Because these change drivers are largely based on the use of new application generation platforms and new Advanced Technologies, this list will itself evolve and can be expected to become more complex before experience simplifies it. However, new automation tools will be released over time in response to what new innovation will allow. We can also expect that as innovations are added to one another to form entirely new products and capabilities we haven't even thought of yet, business operations and how they evolve will also continue to change. And every company will need to respond.

As this happens, it will be critical to companies and professional practitioners to stay up-to-date on their understanding of transformation approaches and the skills needed to create optimal new operating designs, and then build and deploy the solutions. These activities are not easy. They are invasive and pervasive and require significantly greater capabilities than were needed by business and application developers in the past.

Rethinking the Business

This is the real challenge and the thing that few companies are ready for. Unfortunately, the large companies are too cumbersome and have too many diverse management objectives to be nimble. They are like the story of turning an aircraft carrier vs. more nimble smaller ships. It takes a long distance and time to turn the behemoth aircraft carrier, while the nimble gunship can run circles around it. Consequently, the question then becomes one of rethinking the business and the organization to become nimble or continue to slog on the same path regardless of how competitive the company's products and capabilities have become.

Chapter 5: Disruption - The New Normal

The Reality of Disruption

As we continue to build on Business Transformation, we need to step back and recognize that change is no longer just accelerating, it is now accompanied by massive disruptions that up-end everything around us. 2020 and the global pandemic have taught the world a valuable new lesson, the "new normal" will now be defined in terms of the degree and frequency of disruptions. It is up to us as leaders to determine how these disruptions will affect organizations. We can prepare ourselves and equip our people and organizations with the capabilities to navigate the uncharted future or be subject to them attempting to survive from one disruption to the next.

Disruption Has Become Constant - Why Now?

In this chapter we will explore the accelerating change and disruptions that are occurring in plain sight in almost every organization. The fact is that every part of business and our lives has accelerated. This acceleration has negated the old approach of infrequent Business Transformations and has replaced it with a need to continuously react to a host of disruption drivers. To help navigate your research on this topic, we have identified a variety of resources and added them at the end of the book as a means to explore and build your skills and capabilities.

Disruption Is the "New Norm"

2020 was a year that will be remembered as a turning point for many of us. We now have concerns about our family's health, job security and safety, fundamental changes in how we interact with one another, and even how we interact with the world around us.

In this "new normal," organizations and people have been forced to adapt. Organizations that did not, have faded away. People are more resilient and to a large extent determined on how to "get through" the uncertainty and chaos.

Today we are living in a permanent new normal. Change and massive disruptions are understood to be a defining factor in how we operate. The challenge is to determine the skills and capabilities that we will need to thrive as members of an organization, playing a role that will surely evolve as change continues around us.

Everything is Changing

Let's step back and do a reality check. The world around us is in constant and increasing disruption. Not only is Mother Nature holding us to task with viruses and global warming, but technology keeps innovating, keeping our competition up all night thinking up new ways to capture our customers - while those very customers are shifting their values and behaviors. At no other time in human history has change and the very nature of disruption impacted our species to such a degree. While disruption is perceived as a threat or a risk by some to our organizations, others recognized what continuous disruption is really about. An opportunity! Leaders who embrace change and continuous disruption recognized that what is perceived as chaos and uncertainty for some, represents a strategic differentiation for others.

Consider a few of the disruptors that are unfolding right now. Each will have different implications for your organization and the skills people will need to navigate the immediate future:

- Global warming is on the verge of threatening hundreds of millions of people living in low coastal areas. This is forcing governments to think about massive relocation of populations in the coming decades if water levels continue to rise. This will not only affect those directly impacted but also the remainder of the global population as we watch a potential disaster unfold.

- The entire energy sector is aggressively moving away from fossil fuels to alternative sources of energy. As a result, power companies, traditionally fueled by oil, coal, and gas, are reinventing themselves into energy companies. In early 2021, Exelon, a Midwestern energy supplier, announced it was separating its utility and power generation businesses. A clear decoupling of delivery from new ways to generate energy.

- Sustainability is no longer just an aspiration. Customers are switching their purchasing power to companies who practice sustainable manufacturing, have a zero-emission strategy, and recognize the income gap forced on workers in under-developed nations. Today most organizations have recognized that these new considerations must be incorporated into their business strategy.

- Even the internet is changing. Elon Musk is planning on putting over 42,000 satellites into orbit (over 1,400 are floating overhead as of May 2021) to provide Starlink, an internet service, at greater speed to everyone on the planet, regardless of where you live. As of June 2021, there are already 69,420 active customers with more being added every day. Companies like Xfinity, Verizon and others who rely on fiber optic cables, cell towers, and bandwidth on someone else's satellites are at risk of becoming obsolete. To make things even more interesting, Jeff Bezos, Amazon's founder is leveraging his rocket company, Blue Origin, and others to launch a competing satellite internet capability called Project Kuiper.

- And finally, online education and e-learning are part of the educational system. COVID-19 fast-tracked the e-learning and online education industry. During 2020, 190 countries enforced nationwide school closures at some point, affecting some 1.6 billion people globally. All education is being affected, be it elementary, middle, high school, or college, as well as ongoing professional development in critical disciplines like Business and Digital Transformation.

These are just a few of the massive disruptions occurring. The challenge for leaders, managers of people, organizations, and individuals is how to shift one's mindset from thinking about change and continuous disruption as chaos, to embracing this as simply the "new normal." This will require all of us to learn, invest in, and build new skills and capabilities, not just to survive, but to thrive.

To Survive and Thrive Requires New Paradigms

Before we delve into the new skills and capabilities that people need to invest in, let's explore the very foundation that organizations are built on so that we can understand why the skills we have now were relevant only until recently. Paradigms define the world around us; be it the historic agricultural or manufacturing paradigms, or the new digital paradigm which redefines how the world operates.

The recognition that massive disruption is now "normal," is causing organizations to rethink the paradigms that influenced their organizational strategy, operating models and ultimately, the investments that are made in building capabilities for the future. If we are forced to more frequently evaluate and re-imagine the underlying paradigms and our organization's strategy, new and more adaptive skills will be required in today's knowledge workers. That was the world of yesterday.

Today strategic planning, as we knew it, is gone. This shift has started and will continue as companies realize that the pace of change can easily obsolete vision, plans, and strategies – requiring that they be changed quickly to avoid unneeded spending. We are in a world where strategy is constantly evolving as conditions, innovations, competition, change, and disruptions unfold. The luxury of planning once a year has been replaced with "Continuous Strategic Planning." This is a process that recognizes ongoing change and disruption and is constantly updated providing immediate feedback. This is enabled by a new ability, provided by even more valuable and meaningful business analytics, to support rapid changes and course corrections to be made as needed.

Rethinking What an Operating Model Is

Given that we moved to a new way of strategic planning, the underlying operating model that the organization is based on also shifted. Wikipedia's definition is as follows: "Operating model is both an abstract or visual representation (model) of how an organization delivers value to its customers or beneficiaries as well as how an organization actually runs itself." Deloitte describes it as "the configuration of the organization to deliver its strategy."

The old static operating models are being replaced with "intelligent composable operating models" used by organizations that are able to dynamically adapt and fundamentally rearrange their structure based on the needs of change or disruption. As organizations accelerate digital business strategy to drive faster Digital Transformation, they need to be agile and make quick business decisions based on currently available and actionable information. So why is this important to understand in terms of the competencies that people need to have in order to succeed? Because numerous old skill jobs are going away, and the new roles require different skills and capabilities, it is important that practitioners develop the competencies and skills that will be needed in the near future.
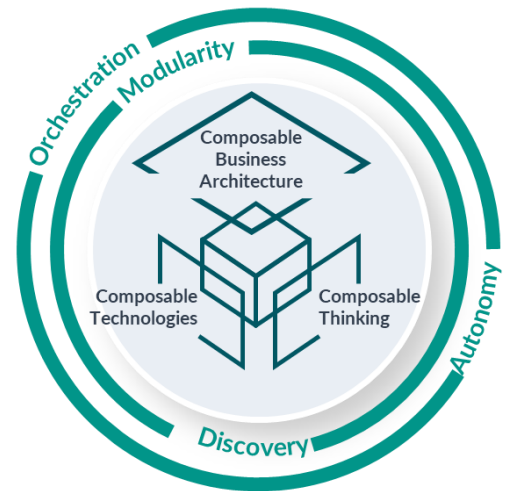
The Role of People in Today's Workforce is Rapidly Changing

As technology continues to automate and eliminates jobs, it becomes critical for everyone to reskill and adapt to the new ways technology is used. In addition, as the nature of business and its organization evolves to be ever more adaptive and flexible, people will need skills to both define the new business environment and to operate in it. As a result, knowledge workers need to excel at what they specialize in.

If they do not, they may find themselves in a position where they do not add value. This need to upskill is moving faster as the trend to automate is accelerated with Hyperautomation. This trend is based on the idea that anything that can be automated in an organization should be and will be to keep up with the innovations of your competition.

In addition, this increasing automation is moving from traditional "back office" functions to processes and decisions that require higher level human intelligence. The fact is that modern automation technology runs on rules that define the business operation. Modeling and mining the rules so change can happen quickly will become a specialty – as will many other key components in driving application definition and generation. This is being quietly done all around us with the implementation of smarter digital solutions that are just the tip of Artificial Intelligence. At its core, Hyperautomation is driven by the response of vendors to the need to deal with legacy business processes that are not streamlined, creating immensely expensive and extensive issues for organizations.

Capabilities Needed to Survive and Thrive

So, let's get to it. Companies today are realizing that the capabilities that built their success today, will become obsolete tomorrow. As traditional roles are increasingly automated, organizations are becoming more adaptive and flexible. As this trend increases, we are recognizing that the remaining employees will be increasingly focused on "What's next?" This will become a key issue that relates to each person's knowledge, experience, and skills – training.

Those people who have specialized knowledge on the company's operation or its rules, and thus have special value, will need ongoing training programs to keep up with the changes in the company's operation and in their industry. To be and remain relevant, people need to invest aggressively in building out their own skills sets and taking control of their personal careers and competencies. This reskilling and a need to stay current in skills and knowledge applies to people at all levels as senior managers will need to understand what is possible and its implications.
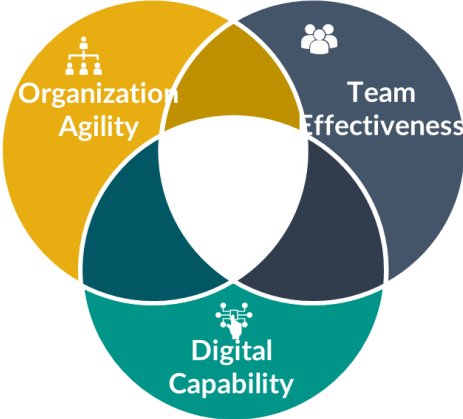
This is a reinforcing loop. Organizations need the next generation of capabilities to remain competitive, and employees need the next generation of capabilities to be relevant. These capabilities can be broadly summarized into three domains – Organization Agility, Team Effectiveness, and Digital Capability. Let's look at each of these three domains individually, explore the specific capabilities that they include, and the resources available to build them.

Organization Agility includes:

- Designing and building a rapid response/change capability
- Anticipating and planning for massive disruption
- Recognizing and defining new business paradigms to ensure differentiation is designed and delivered into every customer interaction
- Reevaluating your essential business capabilities and determining which to deprioritize, which to invest in, and which new capabilities to acquire. Capability Modeling is a capability most often found in the Business Architecture community.
- Building continuous Business Transformation into the fabric of leadership and across the organization. This is about recognizing that transformation never ends, and it needs to be focused on evolving the business, rather than deploying the next generation of digital solutions.

For those who are leveraging Hyperautomation to drive transformation, the overall business and IT transformation designs will be different than those for companies moving into traditional transformation as they will be largely based on the Hyperautomation tool capabilities.

Team Effectiveness includes:

- Implementing different work practices that focus on outcomes and results, and do not reward firefighting, endless unproductive meetings, and decisions driven by hidden self-serving personal agendas. This is often a cultural issue, but companies need to reestablish trust and invest in people's training to increase their confidence in leadership.

  Embracing the work from anywhere paradigm while keeping your people motivated, connected, and loyal is a difficult undertaking. But it is critical as people become less and less office-bound or attached to a company.

- Leaders of people will need to learn how to manage from afar. In some cases, managing teams that you may never come into physical contact with.

  While this has been occurring with the outsourcing of jobs and functions around the world, the results have been mixed. To deliver on the level of customer interaction and experience of tomorrow, managers will need to apply lessons from outsourcing failures and develop new delivery models.

- Making the combinational effect will require that managers collectively openly discuss what has and is working with a distributed staff and determine the most effective way to work with disbursed teams. In other words, how to ensure that people who are working in tandem far exceed their abilities when deployed separately – working on

only parts of a solution or product. This requires greater alignment and the ability to integrate problem solutioning from both an inter- and intra-company perspective. It also requires the adoption of extensive cooperative collaboration. Employees will need to be equipped with these new ways of collaborating and both managing and being managed.

> Note: We define Cooperative Collaboration as a refinement of collaboration that is meant to eliminate passive neglect. Many critical members of collaborative teams are only mildly engaged and miss meetings, fail to read reports, fail to think about situation solutions, or to make timely decisions. That turns the concept of collaboration into an exercise in futility and only wastes time. People on cooperative collaborative teams must respect one another's time and the project by fully engaging and living up to their committed involvement. In addition, cooperation means leaving personal agendas, biases, and dislikes at the door to the meeting room. While difficult, this needs to be a goal and a rule for collaborative teams.

Digital Capability includes:

Among the biggest problems in modernizing both the business and IT operations is identifying and modernizing the thousands of rules that drive the operation. While some of these rules will be found in procedure manuals, many more will be unwritten. There will be redundant rules, expired rules, interpretations that make rules conditional, and much more. And this list doesn't even begin to consider the rules that can only be found in computer applications. This lack of rule control is a serious problem in modern application definition, as Hyperautomation tools require well-defined rules to work properly.

It is important to partner with the business to find, confirm/modify/remove, and rethink the business rules that were developed over the last 20 years to ensure they enable new business strategies rather than constrain them. It is clear that forgotten and undocumented rules and requirements that force bad decisions and actions cannot be tolerated in the future business operation. This point is critical as without complete well defined rules the company cannot run efficiently and outcomes from any work will be inconsistent.

But the creation of a good rule's library is only a part of preparing for the future company operation. The following actions should be considered and implemented as soon as possible:

- Hardening the company and its automation operation to withstand the cyber-attacks that are constant and becoming ever more dangerous and disruptive.
- Building digital flexibility to weather any disruptive event. The investment in technology and the cost of providing digital solutions continues to grow. As this trend continues,

your technology environment needs to be made "future proof" to the next disruptive event. This goes beyond the traditional disaster planning exercises.

- Implementing a program to deal with "all things digital" across all internal and external business processes. This assumes the centralization of control and standards for both legacy and Hyperautomation applications and solutions.
- Applying Artificial Intelligence Engineering to create dynamic processes and customer experiences. This is a rapidly developing discipline that is evolving constantly as new and innovative applications are being designed and implemented. Universities like Texas A&M and Northwestern are pioneering learning programs in this area.

Business Reimagined

In this "new normal" there is no going back to yesterday. Leaders and their organizations will need to:

- Accelerate the business strategy cycle which incorporates shifting business paradigms as a foundation to future survival.
- Redefine their business, revenue, and profit model.
- Rethink the operating model.
- Create adaptive and flexible organization structures that ensure that people focus on results and reinforce an "anywhere" work environment.
- Aggressively implement Machine Learning and Artificial Intelligence, while rethinking the underlying business rules that govern decision making and service delivery.
- Implement a continuous education program to build a highly knowledgeable staff that will be able to support any business or IT related change – fast, with low risk, and consistently successful results.

We need people with the skills and capabilities now to address these and many other opportunities as organizations continue to evolve and grow. However, there are not a lot of people with the right skills and the right capability levels to be competent in creating the business and digital operating environments of the future. This is why we continue to talk about skill development. It is also why it will be important to create high quality learning programs.

A Path Forward

Knowledge workers are generally looking at the future with last year's "normal" in mind, while recognizing that something must change to prosper in the future. But many senior managers are now recognizing that the skills and capabilities that made us successful are not enough. As you witness the changes around you, we invite you to dig deeper. What are the paradigms that are shifting, how are organizations adopting Continuous Strategic Planning and putting in place adaptive structures that flex rather than break when the stress and chaos of change and disruption hit again?

Chapter 6: Business Paradigms: Gaining Marketplace Dominance while EVERYTHING is Changing

Shifting Sands

Do you feel as if the very underpinnings of what is important across your organization is no longer clear? Are we supposed to be focused on cost, customer excellence, driving profitable sales, or on innovative Hyperautomation-based Business Transformation? Which one is most important? Can they all be important at the same time while you are struggling just to keep up with email, meetings, the latest priority, or fire drill? Change projects, deadlines, even shifting priorities are relentless. Just when we thought we accomplished something, the next insurmountable challenge is forced in front of us.

Where is the company going? Is there a new vision and a new strategy? Why is the company considering a fundamental change to the way it has always operated? These questions are leading to a basic question that is really based on the single question, *"What will drive our vision, strategy, and operating model?"* To answer that question, we have found that companies can operate within five fundamental business paradigms that focus all activity across the company. They are:

1. Cost Reduction
2. Revenue
3. Market Dominance
4. Market Definition
5. Social Integration

Each of these business paradigms are discussed throughout this chapter. These paradigms are important in that they represent a type of operating evolution in companies. Each paradigm builds on the last creating an evolution of business paradigms that started over a hundred years ago as a result of the changing economic, business, and societal environment that we all live and work within. The paradigm that a company operates in can also change and evolve as the leadership changes with some senior leaders being more comfortable or having goals aligned to a different or new paradigm than the prior executive group. There is also no single optimum paradigm to work within as each carries implied focus that assumes certain capabilities that must be in place for the organization to thrive within its market.

How Business Paradigms Transformed the Hyperautomation Industry

A good example of how these paradigms function is the Hyperautomation industry. Around 25 years ago the fledgling vendors in what became today's Hyperautomation industry were investing heavily in building automation products and taking early versions to the market. They operated in the "Cost" paradigm. That is an aggressive optimization of the cost basis of their products. As the products improved, they focused solely on growth and moved to the "Revenue" paradigm. This is an aggressive pursuit of revenue growth. Then the completion wars began around 2015 and most moved to the "Market Dominance" paradigm, which is focused on becoming THE leader in the market space. Along the way, many of the players

merged, dropped out, or shifted to different markets. Then an interesting shift occurred. The two major players began to expand into platforms building their own version of other Hyperautomation family tools and integrating with others. Today this move can be considered as their move to "Market Definition." In this paradigm companies fundamentally redefine products/solutions/services which render their competition irrelevant. This is allowing companies like Tesla, Boston Robotics, and a thousand other innovating companies to move to the "Social Integration" level, which is the next paradigm describing a leap in redefining how we all live and interact with the world around us.

Again, there is no one best paradigm for a company. But each paradigm has a price – including the number of entrants into a given market. For example, there are a lot of startups and even large Fortune 500 companies that operate in the "Cost" paradigm or "Revenue" paradigm and likely will slowly go out of business because their products have become irrelevant.

The question of paradigm selection and shift is critical to Hyperautomation and Advanced Technology-based Business Transformation because it defines the playing field or box that the company will play in – it sets boundaries. These boundaries both constrain and expand the types of business philosophies that are put in place and the guiding goals of the transformation. In fact, leadership can either watch as paradigms shift, making them irrelevant over time, or they can look ahead and understand which paradigms and scenarios are most likely in the future and choose to build the needed capabilities to thrive in the next shift.

For this reason, a company must select their target paradigm in any Hyper Transformation as it guides both Business and Digital Transformation and needed capabilities in the target company model.

Shift from Incremental Change to Reimagining Our Foundational Business Paradigms

Welcome to the intersection of accelerating change and the inevitable shifts in business paradigms. This chapter explores how to understand, prepare, and equip ourselves and our organizations to be leaders in the evolving business environment. As we look at the business paradigm shifts that have occurred over the last 100 years, and the shifts that are both underway and, on the horizon, we will outline:

- What the business paradigm shifts are and how they impact your organization.
- How to create a strategy that will adapt as change accelerates and paradigms shift.
- What the implications of Business Transformation are and how it relates to your organization.
- How to successfully create and implement plans to achieve your strategic objectives.

The capabilities that made an organization successful a decade ago have shifted as paradigms are redefining the world. More than ever leaders need the guidance and new competencies to plan, design, and implement the changes needed for every organization's survival. Let's explore what this means for you and your organization.

People across organizations are looking to leadership for clarity around where we are going, to prioritize what we need to focus on and prepare us for what is coming next … the next wave of change. The simple truth is that we are all overwhelmed, from the CEO to the newest hired intern. The pace of change is unrelenting, and we all need a way to make sense of what is going on around us. This understanding is the foundation we all need not only to be more effective in how we contribute and work together, but also to find ways how to get ahead of the constant waves of change.

Shifts in business paradigms impact people the world over. As organizations become more efficient and effective, jobs are lost as a result of the application of technology. Lost jobs are often replaced with the need for new skills and abilities. However, this "up skilling" often requires additional education and specialized competencies. As professionals, we need to understand that as the world changes around us, so will the potential role we play in it.

Equally important organizations are evolving. The capabilities that made an organization successful a decade ago have shifted as paradigm changes are redefining the world. More than ever, leaders need the guidance and competencies of professional architects to plan, design, and implement the changes needed for every organization's survival. The architects of your organization's future include Business, Experience, Process, Technology, and Organization Architects. Together they will work with leadership to craft a roadmap to what is next.

What is a Paradigm Shift and Why it Matters

Let's step back for a moment and consider the foundations modern organizations were built on. In 1913 Henry Ford led the way to sharpening our skills around cost optimization, scale, and mass production … everything we have celebrated around the containment and reduction of costs. This foundation formed the first significant business paradigm. The "Cost" Business Paradigm was the mantra for decades and resulted in a relentless focus on efficiency and effectiveness. The industrial revolution, nation building, and globalization resulted in mass production on a scale that was staggering. Consider this, the real cost of a car has remained relatively constant, yet the amount of technology, life-saving solutions, and luxury features built into today's cars is extraordinary. The data supports this. In 1950 the ratio of car cost/income was about 0.45. In 2014 that ratio was about the same, but your 2014 vehicle will last over 200,000 miles get over 30 mpg, have air conditioning, surround sound, a sunroof … well you know the rest.

Cost management, innovation and customer demand has seen organizations focus on efficiency and effectiveness in all things they do, and we are benefiting as consumers. For the last 80 years, the "Cost" Business paradigm ruled. Then as the digital age took hold at the turn of the century and drove worldwide changes, it also created a shift in the business paradigm.

Profitable Revenue growth became the new mantra. Sure, cost optimization was important, but now we were chasing and expected to become highly skilled in the next business paradigm, aggressive revenue growth. This transition required leadership and people across organizations to grapple with a shift in what was important. Should we continue to drive excellence in cost management, after all, leadership whose careers grew up from 1980 through 2000 cut their teeth on cost optimization and process improvement? Now they need to change their long-held beliefs and focus on the new paradigm, or should they somehow blend both?
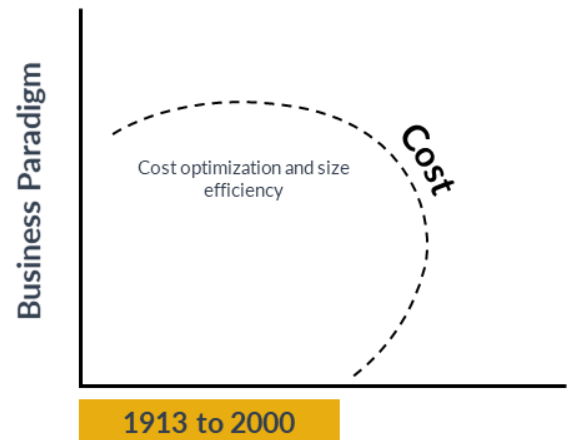
Then Things Changed Again

From 2000 to about 2015 the business paradigm shifted again. "Market Dominance" became the next significant focus for organizations. Again, leadership recognized that their organization needed to retain its capabilities around cost management, and revenue growth, but they needed to do this while investing in a new set of capabilities to survive and thrive in this latest paradigm shift. Over time, management also found that this held true for every paradigm move.

Things Are Changing Yet Again

The New Normal ... The operation will remain largely the same – until the Next New Normal.

Change and disruption are the new normal. Markets continue to shift on a global, regional, national, and local level. With it, asymmetric and traditional competition is increasing and getting increasingly blurred as they redefine the rules that we all operate by. Organizations that understand and build capacity to lead in this new reality will survive and thrive. Those who do not, are already becoming irrelevant. A critical challenge is to retain the capabilities that are required to be successful in each paradigm and build organizational muscle that leverages each evolving set of capabilities.

To map the journey into and through this new reality, we need to understand where we have been and where these business paradigms are taking us. For decades, organizations sought to optimize cost and drive efficiency and effectiveness. Capabilities included standardization, repeatable processes, simplification, and automation. Success was achieved when organizations achieved a tipping point in scale where each incremental unit of production costs less than the last. Leadership throughout the 20th century was celebrated for their success in optimizing the "Cost" business paradigm, leveraging the technologies that focus on cost management.

Then things changed.

While cost is still foundational to success, organizations began to aggressively drive profitable growth. This was not without its challenges. Often leaders look to successes from the past and seek to build the capabilities needed to drive profitable growth in much the same way that earlier leaders built these cost optimization capabilities. However, as technology, globalization, and other environmental changes began to play ever greater roles, the ability for what worked in the past to also work in the future also began to change – and became less effective.

The Revenue Paradigm

The capability sets for each of these business paradigms are not the same. Not even close. The tools, mindsets, behaviors, and reward systems that yielded impressive cost optimization gains do not apply to profitable growth. Capabilities needed for revenue growth include multi-generational product/ solution roadmaps, alternative marketing and distribution channels, multiple customer experience journeys, and building customer loyalty.
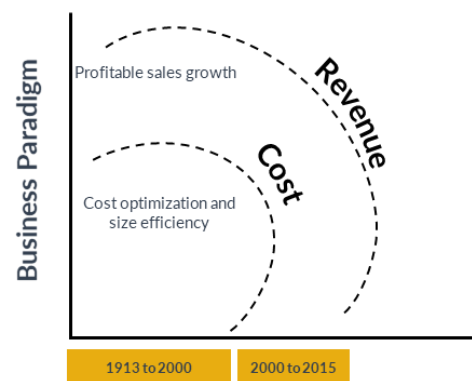
As a result, there is a tension between the "old" and the "new" capabilities. This tension manifests itself like so many other challenges, with a belief that one set of capabilities is better than the other. Nothing is further from the truth. Both capabilities need to be nurtured and

continually be invested in. Time is not kind. Whereas the "Cost" paradigm lasted for over 80 years, the "Revenue" paradigm has already come and gone, lasting less than 15 years. We had decades to learn how to drive optimization. Companies had time to build and mature capabilities to deliver profitable growth. However, with this paradigm change came a decrease in focus on technologies that drove cost reduction and an increase in the focus on technologies that helped to support increasing revenue – such as increasing sales per customer and delivering solutions with more features – regardless of customer needs or wants. As a result, organizations had to learn faster, and operational efficiency often became a casualty of work-around solutions to capability problems.

While paradigms continue to shift, it is ironic that so many organizations are still struggling to make their operations more effective and efficient, let alone drive towards true optimization. Even in 2021, leaders are still grappling with how to become "process centric organizations." Some think that cost management and process efficiency will deliver enough differentiation to ensure their success. This insular thinking is not kind. Over 70% of Fortune 500 companies have disappeared over the last 60 years, with many more to come. Consider managers and leaders who are still struggling with poor processes, siloed structures, badly designed customer experiences, and ineffective use of technology. They are still struggling with building capabilities needed to deliver the basics. For some organizations, the saving grace is that many of their competitors are still struggling as well. However, they too are either learning or becoming obsolete. Just because property and casualty insurance companies have archaic processes and technology that does the job today, it does not mean that they will survive through continued incremental improvement. At some point, an asymmetrical competitor will emerge and make how they think about, let alone run their organizations, become obsolete overnight. It will be game over. There will be no time to "transform." The legacy organization is saddled with too many inefficient processes and old broken technology. The carry forward depreciation will not allow for a business model that can cover the cost of the legacy business model.

And things are changing again.

The Market Dominance Paradigm

The world of today has shifted once again. Organizations must recognize that the capabilities of cost optimization and profitable revenue generation have become table stakes. Market Dominance is the paradigm that organizations need to understand and strive to shift towards. Consider Uber who has not made a profit since 2009 yet owns 65% the market (in the United States). In spite of this, investors continue to value Uber favorably. Why? Uber works hard to constantly optimize their Costs. They are relentlessly driving towards revenue and profitable sales … and they are ruthless in Market Dominance. They are leveraging the unique capabilities that are required to be successful in each of these paradigm shifts.
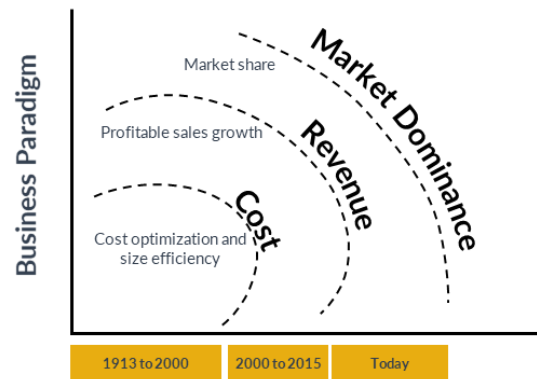
To further illustrate Uber's "Market Dominance" it is not confined to moving people from point A to B. They are heavily investing in autonomous vehicles and have created new services like Uber Eats and bicycle sharing. The next generation of solutions is on the way in the form of UberAIR which will provide short flights using vertical take-off and landing (VTOL), e.g., drone aircraft. They are aggressively pursuing the business paradigm of Market Dominance, while sustaining and continuing to hone capabilities required by cost optimization and profitable revenue.

With the "Market Dominance" paradigm, new technologies and digital engagement solutions are being employed. These included advanced analytics to understand customer behaviors and buying patterns, coupling brand to a digital customer experience, multi-mode customer experience and connection points that are integrated and range from social, media, SMS (texting), influencers, and other mechanisms to connect digitally to your customers.

An example of this is the automation of both employee and customer facing help desk capabilities. Remember calling up your 'help desk' when your computer screen failed. Or calling the customer service help desk in some far away land to wait an hour on the phone for help with your new flatscreen TV. Today these functions are being replaced with intelligent help desks that leverage AI to deliver a completely new and more effective employee and customer experiences.

Has your organization recognized these shifts in the business paradigm and the resulting evolution in the global economy? Which set or sets of capabilities do you fall back on when challenges emerge that threaten your organization? Do leaders suddenly become micro

managers around cost and process optimization while struggling with (and often denying) their responsibility to provide a compelling vision and strategy to take your organization forward? Are you fighting internal battles for resources to mature cost optimization vs. profitable growth capabilities, falling victim to turf wars over scarce resources? Is leadership holding meetings to review project progress, or are they creating new business models, customer value maps and scenarios to determine how to best place the next set of investments?

Hang on, things are about to change again.

The Market Definition Paradigm

MBA graduates learn that organizations need to adapt and grow, or they will fade away and die. As stated, change is the new norm. With it the business paradigm is in the process of shifting again. The next paradigm is Market Definition where organizations are carving out completely new markets, industries, and creating customer use cases that do not exist today. Capabilities for Market Definition rely on innovation, leveraging technology in ways that are completely new and unique, and the creation of new customer needs and solutions.
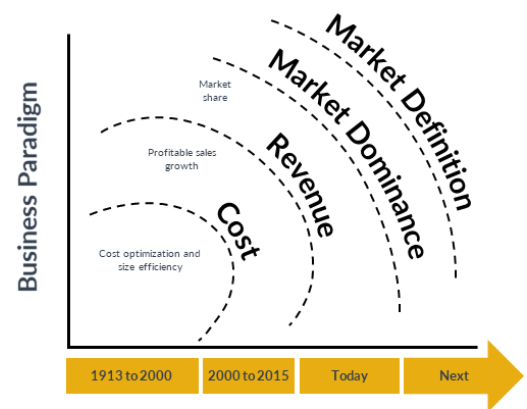
Think about the convergence of Internet of Things (IoT), Big Data, and Artificial Intelligence (AI). These three concepts were in their infancy only five years ago. Today they are at the tip of a convergence that was inconceivable until recently.

Tesla has taken the digital experience to the next level. Today over 75% of all Teslas are built by robots leveraging Hyperautomation, and this continues to increase. In addition, the customer acquisition model has shifted from show room negotiations and sales, to providing a customer experience with the vehicle and leveraging an end-to-end online buying experience. They are so good, that customers put down deposits for vehicles that will not be available for months, effectively funding Tesla's growth ambitions with customers' money.

There is a clear pattern of accelerating shifts in the business paradigm. Cost Optimization lasted for decades. Revenue Growth was the focus for about 15 years. Most recently Market Dominance endured for less than a decade and a new shift is already upon us.

Things will change very quickly after this.

The Social Integration Paradigm

We are already hearing whispers of the next paradigm shift. We call this "Social Integration" which is defined by environments that untether people and create social-engineered environments and solutions that will redefine interaction between people and "all things" and drive the next generation of boundarylessness in all its dimensions (social, geographical, economic, etc.). Technology will drive much of this next shift. Emergent capabilities are just on the horizon and will incorporate both virtual and augmented reality, and virtual personas enabled by gamification to create new social and business interactions, to name a few.
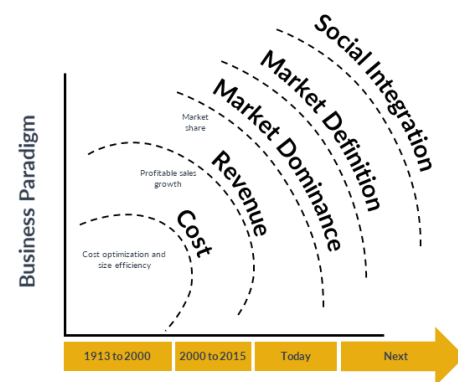
Consider the "Passenger Economy" which is on the horizon and is defined as a set of industries that commoditize mobility, generating new services to enhance—and monetize—the experience of being a passenger in a so-called "driverless future." As it becomes increasingly possible to personalize and automate transportation, passenger vehicles will become a site for commercial opportunity. Today this new economy accounts for almost no revenue. Predictions call for this new economy to be more than $ 7 Trillion US by 2050. Said differently, in less than 30 years there will be a completely new economy that is almost 35% of the entire GDP of the United States in 2020 which was about $ 21 Trillion US. And that is just one of many shifts that are quickly emerging.

Leaders of today and tomorrow are embracing these new realities and are equipping themselves and their organizations with the adaptive capacity to define and lead across all dimensions of the known and unknown to ensure that they are relevant in this new social and economic environment. This does not imply that an organization needs to be "excellent" at performing each capability themselves; they simply need to ensure that it is delivered on their behalf. Hence, increasing sourcing opportunities for organizations specializing in specific capability delivery.

Translation

To survive, organizations need to master the capabilities of each business paradigm, as well as the inherent capabilities that Hyperautomation offers, to define and create fundamental

market differentiation that will be difficult or impossible for competition to bridge. Unless of course your competition comes up with the next disruption that puts your company behind.

The Impossible Becomes Possible and Normal

Let's look at several practical examples of business paradigm shifts. Consider a copper mining company. The essence of this industry has not changed since we began scratching at the earth. We have come from shovels and wheel barrels to immense (increasingly autonomous) machines that handle tons of material. There are complex automated extraction technologies that pull copper from raw material. But it is still copper extraction. Imagine if you owned a copper mine. You have grown your business as a result of relentless efficiency and the application of technology. Excellence in Cost optimization is at your core. As the business grew, you sought new sources of revenue. Selling to more manufacturers who need copper as a raw material. Next came consolidation to mega mining companies that came to be Market Dominate. Your organization may have survived this by buying up other companies, or was gobbled up by a competitor; regardless, there are fewer larger operations. As we look forward, we recognize that for a copper mining business to be relevant it needs to see new market applications of copper. Examples include: copper being incorporated into the insoles of shoes or copper strands added to textiles for health improving properties. New applications are constantly emerging. How can your mining company shift from Market Dominance to Market Definition through the creation of completely new markets, products, and solutions? This requires a fundamental shift in thinking for leadership. They need to not only be great at extracting copper, but they need to identify and possibly create new markets for their product - copper. We can imagine that the next iteration of the market being the merging of extraction with reclamation on a much larger scale to enable Cost, Market Dominance and Market Definition. Still there are unknowns in the future. We can even envision a future where copper-laden asteroids are mined in space. That would be a game changer and while not likely in the next 5 or 10 years, how does today's copper extraction business plan to prepare for these kinds of potential shifts.

None of this is inconceivable when you consider that the impossible is almost always made possible. Today we have multiple times more computer processing power in our smart phone than the Apollo space systems. We can fly around the planet in an airplane powered by solar cells in less than five days. In less than a decade we will most likely be traveling point to point in an autonomous car and driver's licenses will become irrelevant. Within the next decade we could possibly have humans standing on Mars. Like the Apollo space program, new technology and products will emerge from the push for Mars.

Consider Changes in Healthcare

Another example is healthcare. The care model began as local delivery of care with a localized healthcare insurance model. Over time, this shifted to a regional model with large centers of excellence. This includes MRI centers, physician practices that specialize in pulmonary, cancer, and other unique conditions. Today we are living the transition from regional/national where there are large dominate health insurance companies that have vertically integrated patient care and delivery, with pharmacies and insurance products. Each shift is consistent with the paradigm shifts that we have described - Cost to Market Dominance to Market Definition. We have already witnessed the integration of CVS (national pharmacy) and Aetna (national health insurance), or Optum (national health insurance) buying DaVita clinics (healthcare providers, e.g., doctors) and Catamaran (national pharmacy).

The global disruption of 2020 accelerated all things in healthcare delivery. Tele-services became mainstream almost overnight. Touchless services have become the norm.

The Evolution in the Payments Industry

Let's look at a fairly stable industry. The payments industry which is all about moving money from point A to point B, or from organization A to organization B. There are a number of dominate players who are the custodians of monetary transactions between entities. This began when people and companies issued checks between one another. With credit cards, the volume and speed necessary increased exponentially. Today we transact trillions of dollars with billions of transactions annually on credit cards. So how do market players succeed in this space? Initially it was through Cost Optimization. Literally driving down the cost of processing a transaction to sub $.01's. Then the paradigm shifted. The industry recognized that it could increase revenue by creating barriers to customers exiting. Connecting your credit card to a revolving payment like your water or gas bill made it harder to move to a different credit card company. The next shift is upon us. While consumer transactions are in the trillions, business to business and government to … well, everyone, eclipses the trillion-dollar consumer market. To "Dominate and Define" these markets, payment companies will have to continue to aggressively drive their costs downwards, while investing in new capabilities that allow them to "Dominate" and define these new market segments that have different customer values and opportunities for their next paradigm shift. And even this is temporary as the world leaders have to adjust society to an undefined model with the global replacement of workers by robots and money becomes obsolete.

Even Consulting Has Been Transformed

Finally let's look at the Technology Consulting Industry which in the 1980s and 1990s was dominated by American firms. Then there was a "Cost" shift when India became the most cost-effective technology supplier in the world. They invested in educating hundreds of thousands of local professionals in technology in their country, effectively redefining the cost model for technology. This destroyed the American consulting business model as "Cost" became the key differentiator. With time, "Revenue" became the new paradigm and Indian companies began to lose business revenue as their quality eroded and became unacceptable allowing other entrants into the market. The "Revenue" paradigm now changed and focused value on high quality AND low cost of technology design, development, and deployment. With time, the Indian companies have regained "Market Dominance". The India-based companies TCS, Infosys, and Cognizant are the dominant technology players today. What might the next shift bring?

Hyperautomation is already driving the next paradigm shift. In the past, programing code shifted to low code, then no code. Next will be AI creating rules based on patterns of success and failure defined by people, then AI defining rules based on rules THEY write. There will be no cost advantage to employing lower cost technology knowledge workers who generate quality computer code because there will be NO NEED to write code at all.

Creating a Strategy Which Acknowledges Paradigm Shifts

Understanding, anticipating, and preparing for paradigm shifts is done via the annual strategic planning process by an organization's leadership team. In the past, this was a cyclical process that began in the late summer to create the next 1-to-3-year strategic plan and associated budgets for the next year.

Continuous Transformation and now Hyper Transformation have made this approach obsolete. As soon as a strategic plan is hammered out, including the many different leadership agendas, points of view, and personal interests are finalized, a strategic plan is dated. And waiting for all the advantages of new automation and Advanced Technologies for a year cannot be tolerated. While leadership was deciding what it needed to do in the coming years, the competition was doing the same thing – and some were acting on the new capabilities to put them ahead. But for many, their process was different. They asked themselves, "*If we were our own competition, what would we do?*" This reframed the game and allowed your competitor to

define the rules of the game. Oh, it gets better. While the legacy or "old school" companies hesitated, some competitors were doing their strategic planning, using an asymmetrical start-up teamed up with a different technology and not only redefined, but radically reimagined and prepared for the future. The fact is that new capabilities that need to be considered in any visioning or strategy are coming almost daily – certainly monthly. To succeed, companies must build the ability to move quickly and to re-plan, reprioritize, and re-budget at least quarterly.

Are Your Leaders and Organization Ready?

Is your leadership considering the implications of rapid and disruptive change, and the profound shifts in the business paradigms that we are living with today? Are they building the organizational and leadership capability to adapt, build, and deploy new innovations while continuing to mature existing capabilities? Do they know when a capability has become obsolete and how to exit from that investment without being hindered by the emotional and monitory investments that have been made in them?

To ensure that your organization is ready, it is important to differentiate the roles of key leaders in defining and executing the change and transformation that your organization needs to undertake.

To support the visioning and strategy processes, a new role will need to be created. This is the "Market Architect". This person or group is constantly scanning the external environment to understand innovations and changes in technology, market dynamics, the competitive landscape, asymmetrical threats, and the implications to your organization's business model. This advisory role will soon become critical as keeping up with innovations becomes impossible for those managing groups or the entire company.

The Chief Executive Officer is accountable for establishing the vision for your organization and how it will create and deliver differentiation to not just dominate your market, but to define your market and ultimately be the dominant player in Social Integration. Finally, the Chief Strategy Officer creates continuously evolving and shifting business strategy that is used by business leaders to achieve the desired business outcomes.
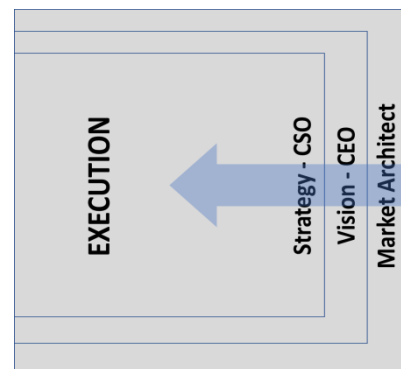
For change and transformation to be successful, leadership must determine its ability to continuously change their end target and the path defined in their execution plan – including how to enable its people while leveraging technology to provide business change agility and finally, to make the right business decisions. These four factors are leveraged to drive your desired strategic outcomes.

But equally as important as these views of strategic planning are, is the creation of a way to evolve very quickly, changing strategy and the strategic execution plans, while retaining control over the evolution. Hyperautomation and Hyper Transformation have changed that playing field.

Looking Ahead

Transformation must be considered within a type of business vision framework. What are the short- and long-term goals? Do they align to build from short-term to long-term changes? What are the major objectives? What is needed to deliver those long-term objectives?

The journey through the paradigms discussed in this chapter is not necessarily linear. The components of any business paradigm may be mixed to some degree based on vision and need of your organization, the customer and market that it serves, today and tomorrow. But the journey should align to the Hyper Transformation business evolution plan and its financial plan. The key is to determine what paradigm best fits your current vision and strategy, and how your business operating model needs to change to deliver the goals and capabilities of the paradigm level that is selected.

In the future, as opportunities change the corporate vision, the decision to move to a different business paradigm will be tied to strategic goals. This will make a decision to move to the paradigm that best meets your needs a part of the normal strategy setting process.

Chapter 7: Architects of Transformation – Defining, Planning and Implementing Your Transformation Agenda

Designing For Success

All change is disruptive – there is little debate on this. The larger the change the more intrusive and disruptive, but even small changes cause tears in the processes, rules application consistency, and procedures – and they add up to cause widespread problems.

These problems become worse when one perspective is the basis for a change. For example, any group in the company or any consultants that are too steeped in any single industry, discipline, or skill set will produce a solution that leverages their individual expertise and the perspectives, beliefs, and solutions that experience provides. While this is great for some things, it is a constraint for any transformation-level business redesign.

The obvious question is why? - since this is a departure from conventional wisdom. The reason is that it generally acts as a filter to what they are seeing, hearing, or evaluating. The fact is that nothing in business stands alone. Every aspect of any operation is multi-dimensional, and every part of any business operation can learn from what others in different industries are doing.

For example, we have worked in multiple industries and in a great many situations. We have also dealt with a wide variety of business operating problems. We are not limited to the conventional wisdom of any single industry and have mixed ideas from solutions in multiple companies, industries, and problem resolutions to create innovative approaches.

To successfully drive your execution plan there needs to be a solid business strategy in place. Similarly, to enable your people you need to put in place the right structure and supporting mechanisms so that your organization can function effectively. In addition, to provide the organization the right technology to enable change agility, investments need to be made in the technology that enables the Future of Things. In other words, how to leverage current and new technologies at a cost point that enables the organization to thrive.

However, we recommend that the company initiate a digital transformation program that is focused both on new Hyperautomation and the elimination of legacy technology and applications over time. Finally, we suggest that companies need to optimize processes so that they have the context to make the right decisions as they apply Hyperautomation and evolve the operation.

As companies consider how they will redesign and rebuild their processes, considerations and observations from multiple discipline-based perspectives becomes critical. The problem is that people tend to get too close to a way of doing something – especially the people who designed it and have modified it over the years. It is easy for managers and staff to take ownership and resist changes.

These different dimensions allow for differing perspectives that must be considered and blended to create an insightful solution that will be accepted. Not doing this is a fundamental

weakness in past approaches to large projects, is one of the reasons for the high failure rate of projects in most companies.

The Architects of Transformation

To accomplish building this composite view of the operation, the leadership team needs to leverage several different architectural roles and ensure that they work in an integrated manner to provide the design and ability to implement needed change and transform the business. These architectural roles include:

- Transformation Architect
- Business Architect
- Experience Architect
- Process Architect
- Organization Architect
- Technology Architect

Few will have Hyper Transformation experience – rebuilding a company operation around a move to adopt Hyperautomation and Advanced Technology as the focus of business changes in the future.

It is worth noting that experience in building an RPA or iBPM, or any other application will not be sufficient – the experience we refer to is leading a Hyperautomation group or a Hyperautomation-based Hyper Transformation project.

The skills that will be needed in this move are described in this section. Some however, have experience with individual products that fit under the Hyper Transformation umbrella. These people will be needed, but their product biases and large business project management capabilities will need to be closely evaluated.

However, the direction of any Business or Digital Transformation redesign must be framed by the company strategy and a clear definition of the vision for the future market, customer, and operation. With this in place, and a comprehensive transformation plan, project definition, project plan, and budget can be put in place by the sponsor and project leader. As the plan and budget are assessed, the sponsor and project leader can assess staffing needs and adequately

staff the project while determining the involvement that will be needed from affected managers and staff in the operations, production, and technology areas.

The Role of Architects of Transformation

To design, implement, and manage change across an organization, the six architects need to collaborate to define and create the future. These "cousin" architects work together, each with clearly defined roles and focus areas, which when well managed provide leadership and a blueprint to execute their vision and overall strategy while building the capabilities required to outpace your competition.
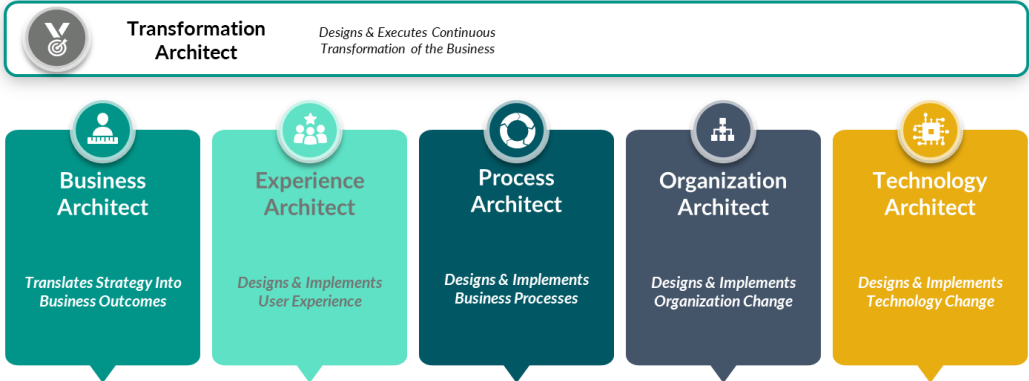
The path toward transformation requires not just a strategy or an "aspiration" to dominate, but a coherent map to the future. As such, architects in our organizations are tasked with improving the efficiency and effectiveness of the current paradigm, optimizing the "business of business," leveraging technology to drive down costs, and support innovation and differentiation.

Today's leaders rely on the successful collaboration between the six architects:

Architect	Role/Function
Transformation Architect	This architect will take on a VP or Director of Transformation role. The person will have proven skills and understanding of all aspects of Business and Digital Transformation in both traditional companies and those who have adopted Hyperautomation as a way to gain a competitive advantage.
Business Architect	Translates strategy into business outcomes and aligns them to the capabilities and an operating model. Aligns each of the business operating elements and ensures that all business capabilities are available. Ensures that the business structure provides needed production and operational support to deliver strategic goals. Works with managers, staff, and the technology experts to enable desired strategic outcomes.
Experience Architect	Responsible for Experience Design which is the practice of designing products, services, media, information, and interactions for people. Experiences can be designed to persuade, stimulate, entertain, or inform.

	This role is responsible for ensuring that the experience meets or exceeds needs and objectives of the intended users.
Process Architect	The Process Architect is responsible for the operational design of all processes and thus the business operation. Working with the other architects, the process architect determines the order that parts of the business will change, as well as flow and streamlining of the operations – in all locations.
Organization Architect	Ensures "change management" plans are built into all projects, determines how best to design, and implement adaptive organization structures that anticipate future change, places the right people into the right roles, and provides them with opportunities to develop their skills and abilities. They work with leadership to understand the implications of the transformation and how to leverage and align the strategy, culture, and employee experiences for success.
Technology (Enterprise) Architect	The Technology Architect is responsible for the redesign of the current IT infrastructure, hardware mix, applications, and data use. Determines how the IT operation will change based on Hyperautomation technology advances. In addition, they work with the other architects to explore how technologies enable the customer experience through differentiation and value, as well as how these technologies can drive business efficiency and effectiveness.

Together these architects work with leadership and across the organization to reimagine the business of today and create a compelling view into the future with a plan that is achievable.

> Note: Not all organizations may have a person in each of these architectural roles based on their size and resource availability. What is essential is that each of these disciplines be represented and considered during the planning, design, and implementation of your transformation efforts.

Making Collaboration Real

1. Each architect needs to have a clearly defined role, a clear framework that is understood by each architectural discipline, and clarity around how they work together as a team of architects.

2. Each architectural discipline needs to be at a similar level of maturity to their peer architects. Imagine if your Business Architect were at a "crawl" level, and your Experience Architect was "wandering around", while your Process Architect was "walking?" What if your Organization Architect was "running" while your Technology Architect was an "Olympian?" This variation in maturity would prevent the team of architects from working together effectively.

The solution is two-fold as well. First, we create clarity around the boundaries between each architect, understand one another's frameworks, and define where and how they work together. Next, looking at each architect there are clear and unique roles that each play and areas that they need to collaborate in. While each with have the myopia of their discipline, together they proved to have a comprehensive view of the business areas to be included in the transformation.

This is a constantly iterating process. Change does not stop; in fact, it continues to accelerate. Competition does not stop innovating. Customers' needs and wants continue to shift. Technology and its successful application are constantly in flux. As a result, the six cousins need to collaborate to drive the current strategy and enable leaders to deliver on strategic objectives. At the same time this collaborating group needs to begin envisioning the future and put in place the organizational capacity that will be required of the next, all too soon, market/business paradigm shift.

Transformation Methodologies That Create an Integrated Ecosystem

Each architect has a framework and methodology that interrelates to their "cousin" architect. This connectivity ensures that the capabilities that are essential to maintaining the current paradigm continue to be monitored, while investments are made into the capabilities required for the future. We call this managing the capacity gap. Leaders and managers need the capacity to stretch from delivering on today's objectives while looking ahead toward what is required for tomorrow. The "stretch" is designed and managed by the architects on behalf of leadership.

We begin an unending process in which the Business Architect links the business strategy to the optimum operating model and the execution of investments to transform the organization. The Experience Architects ensure that you are delivering a differentiated experience to your customers, employees, and business partners. This promise is a key aspect of your overall business strategy. Without excellent experiences customers will not buy, and certainly will not become repeat and loyal customers.

The Process Architects design the processes that need to be in place to deliver on the customer promise and run the organization. The Organization Architect designs and manages the processes that enable people and the organization to evolve and shift as constant changes are made to the operating model, business processes and the decisions. Finally, the Technology (Enterprise) Architect applies contemporary and emerging technologies to automate processes, ensure cost optimization and process integrity, while working with leadership to understand how Advanced Technologies and digital solutions will enable the overall business strategy.

Working Together – Cooperative Collaboration

The six architects of transformation represent the major disciplines needed to be consistently successful. And that is a critical difference in the hit or miss success that has plagued transformation and resulted in over a 70% project failure rate in both business and Digital Transformation. In Hyper Transformation the actual Business Transformation is an evolution from today's operation to the envisioned one that the company's business strategy is based on. This evolution should build the new solution in business function increments. This means that if any function's redevelopment in the evolution fails, any work on the rest of the transformation must be put on hold until the failed business function is corrected and is operational. Therefore, continued success from business function phase delivery to the next phase delivery is important.
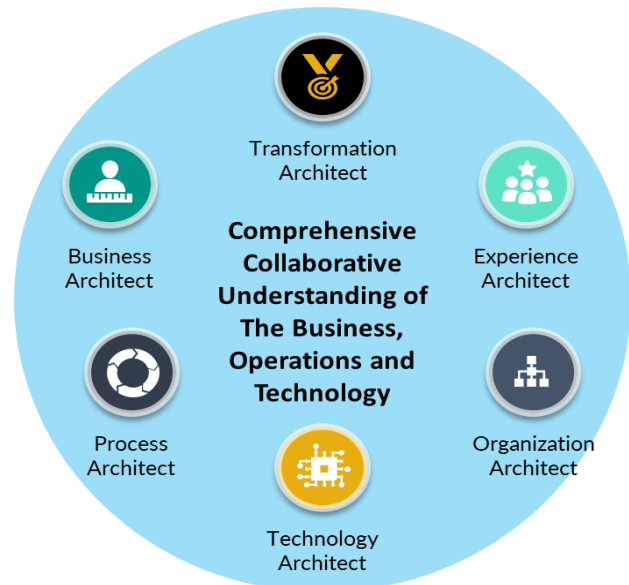
> Note: Each Architect's viewpoint on the overall business and its operation is combined into a single multi-perspective understanding of the business and its strategic intent.

The business redesign in this approach begins with a detailed, comprehensive, model of the new business operation showing all business functions, their activity, and relationships at the activity or lower level of decomposition or work breakdown. This model clearly shows automated systems support and data flow between the activities. This includes workflow, what data and documents pass and when, performance information, and use requirements. All six architects of transformation will contribute to the creation of this model as part of the redesign team. The new design considers the four dimensions of a business operation and is a streamlined version that leverages available legacy and Hyperautomation tools and capabilities to optimize the work. All problems will have been identified and savings that will be realized from their elimination estimated by area managers. Activity elimination and change benefit will also be estimated by managers with the estimates justified. This way the results will be measured, will also be determined, and performance management will be built into the new operating model. This new comprehensive business design is the foundation – it is vetted with all affected managers and approved.

In reality, the model is a big puzzle of the business operation. The benefits are associated with individual business function. The teams can now produce conservative costs to create an investment model at the business function level. The costs and benefits are now aligned to the

transformation and to the individual business functions. If estimations were honest, they should be realistic, and it is easy to see what business functions will offer the highest benefits.

Because the context is shown (how every function and each of their activities fit together and what is passed to or from each) the team can now determine how to proceed and divide the new business operation's construction into phases or steps. They can also determine which business functions will be built in each phase and predict the cost and benefit of each phase. Also, they can test the benefit against the projection. In addition, working with each of the six architects of transformation, they can make certain the phase's capabilities and flow meet expectations.

Process Hierarchy Decomposition model

- Strategy
- Capabilities
- Process
- Sub-Process
- Business Function
- Activity Workflow
- Task Workflow
- Step Workflow

Process Decomposition – Increasing Detail

In this evolution approach, each business function phase will produce a specific operational part of the overall solution.

Because each phase's business functions are analogous to pieces in a big puzzle, the new operation can be built by linking the individual functions across interfaces that have been defined in the business model. In this way, the new business operation will be built in function phases according to a master BPM workflow model (hierarchical model starting at the strategy level and breaking down to the step level).

As can be imagined, different questions are asked at each level in this decomposition model and differing discipline skills apply as you moved from the conceptual strategy and capability levels through the high-level process definition to the actual operating model in the business function level and the increasing detail as you move down to the step level in the workflow. This approach was created as an innovation to stop problems with communication among stakeholders, eliminate operation by interpretation, and meet expectations. It also provides the information that knits the design together and thus the solutions and its applications – as all are identified, aligned to business activity, and flow aligned with the work showing what data is transformed, where it is transformed, and what data is passed to each activity during each transaction. This is the part of a Waterfall method that provides a comprehensive context-based current and future business model.

But a model is just a model and without the interpretations from the six architects based on the perspectives their disciplines each provide, it would be interpretive and open to opinion.

The project will begin with the foundation of the strategic vision, plan, and end state model of the future. This is the basis for capability identification and definition. This is where the
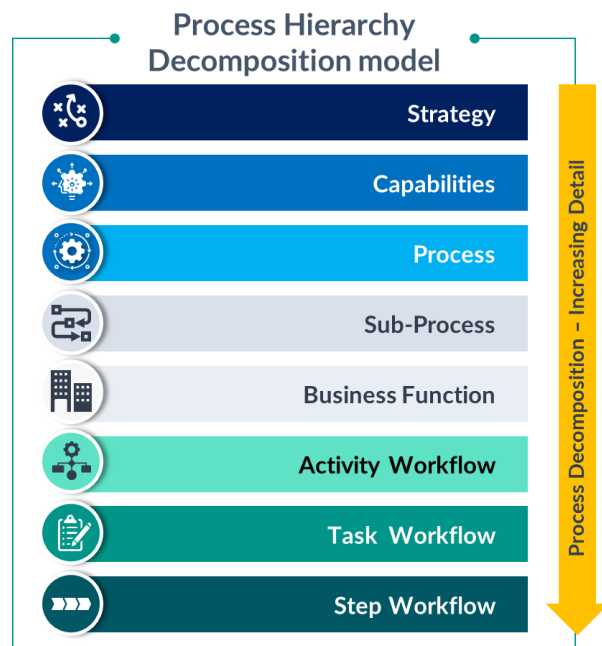
business architect begins to set up and manage collaboration. All stakeholders and executives must agree on these components and their definitions. This is where expectation management starts.

This information and the models define what the processes will need to support. How this support is delivered is the role of the Process Architect working with the Business Architect. Once the processes are defined and the business functions are being designed, the technology perspective will be added. The user Experience Architect will then provide a perspective on usability and finally the Organization Architect will work with the others to determine geographical distribution of work, work management, and skill needs. This design process will be iterative and will be flexible throughout the transformation project to reflect changes in the automation and other technologies, market evolution, competitive innovation, and buyer needs. Changes are thus easy to accommodate but there will be a ripple effect as the impact is addressed.

As the first comprehensive draft of the process redesign is fairly complete, the Technology Architect will work with IT management to determine if, when, and how the digital capability of the company will need to evolve. This is where the commitment to Hyperautomation and Advanced Technology is made. This decision is based on capability needs as defined in the company strategy and the business processes. The result is a justified change that once aligned to the process rebuild evolution produces an investment plan. Working with finance and senior management, the timing of this plan produces an approach the company can afford. Because the IT and process transformations are aligned, each functional phase in the overall evolution to the new operation will produce a definable part of the new operation with specific measurable benefits that will eventually start to offset further investment. Managing this benefit delivery is the job of the transformation manager working with finance and legal.

From this point on, all of the architects will be involved in guiding the project teams from new design completion through solution construction and the various stages of testing to implementation and integration with the function components that have been created in previous phases.

These architects will define the competencies and skills the staff will need and how the customer will interact with the company. As this is built, expectations will be tracked closely and each function will be tested, improved, and accepted before it is released for use.

In this way, the transformation will be affordable and deliver predicted benefits through a set of activities that meet the use and flexibility needs of the appropriate staff.

> Note: Although the titles may vary from company to company, the discussed activities must take place. Please substitute the titles used in your company for the person or people who are responsible for the listed activities or outcomes.

Architects of Transformation
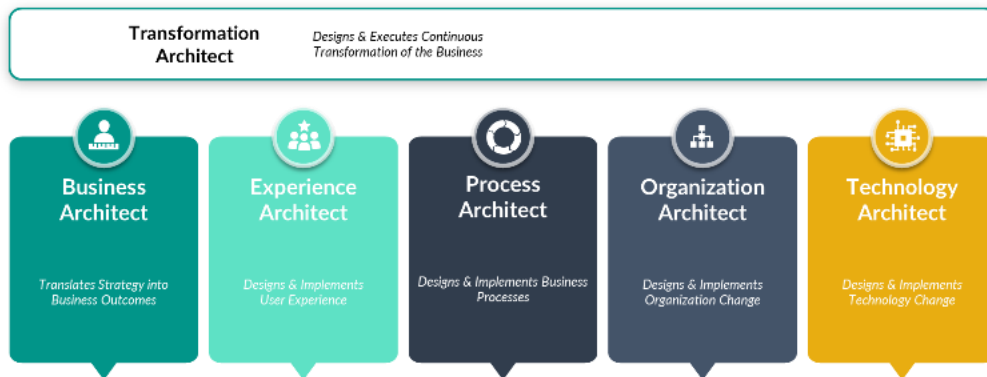
These architects form a collaborative group who are responsible for providing a comprehensive understanding of the current business and automated operations and how activities form processes and deliver products. Each architect will offer a unique perspective that when combined provide the insight needed to understand the way the company really functions today, its problems and the changes that need to be made immediately. They then build on this information to work with the sponsor and those managers who will be affected to redesign the business operation around the capability needs identified in the future state target operating model.

Transformation Architect

The Transformation Architect provides oversite, quality control, problem resolution, and both budget and expectation management. They must be well-versed in all the disciplines, methods, and concepts of each Architect of Transformation that they manage. This architect must also understand large project management, dispute resolution, legacy and Hyperautomation capabilities and the best ways to architect solutions**.**

Every large project will have a formal manager with responsibility for the full scope of the project. Here it is the Business Transformation/Hyper Transformation Architect. These architects must have a full range of large transformation project planning and execution skills and experience. This includes both legacy and Hyperautomation products, as well as the Advanced Technologies that may be useful to the company. Depending on the size and complexity of the project, this person may have multiple reporting managers who are each in

charge or a given part of the transformation. In addition to overall transformation management, these Transformation Architects will be responsible for the accuracy and quality of the work in each of the four dimensions of the transformation and in all parts of the transformation project solution development cycle.

Operational Responsibilities

In addition to project planning and management responsibilities, the Transformation Architect will have responsibilities for work in areas of the business – Strategy, Business, IT, and Organization. Transformation Architect responsibilities in each of these areas will be:

- The Success of the Transformation – directing all activity and making certain all components are high quality and fit together efficiently and effectively. This control must be supported by investing the authority to control the effort into this architect.

- Manage Expectations – assure the solution is optimized and the work flow streamlined, oversee risk management, defines benefits for each step in the evolution of the transformation's business areas and makes certain the benefits are delivered.

- Scope Definition – the scope of these projects will vary, but any defined scope involves all aspects of a business operation and the multiple concurrent sub-projects ongoing at any point in time. Each of these projects will have a collaborative team that is built around the Business, Experience, Process, Organization, and Technology Architects.

- Approach – the solution evolution, from approach to solution build and deployment are all part of a Transformation project. If your company divides the transformation into business operation activity or lower-level components within business functions, in an end-to-end process model for execution, the business areas in each component can be handled individually.

- Planning– the approach that will be followed and the resulting planning should follow a formal but flexible Business Transformation methodology that combines both Waterfall and Agile concepts and tasks with BPM, Six Sigma, and Lean concepts. While each of these management and execution components are often used alone, each has strengths and weaknesses that are mostly mitigated when used together.

  > Note: Much can be gained by taking the strengths of each component and combining them. We take what we can use and build approaches that fit the projects and their objectives. This takes a familiarity with as many approaches and concepts as possible – and the flexibility to learn and replace anything with something that is better.

- Operational Management – oversight of all project-related activities, expectations, investments, investment plan alignment to the evolving project development, and the implementation plan.

- Project and Sub-Project Design – design the structure and goals of the transformation and sub-projects and the selection of the business functions that will be broken out and performed separately, and the design for how the sub-project's products will be recombined as each is completed. This includes the definition of the multiple phase approach where each phase produces a useful and immediately usable part of the overall solution. In this way, the business will evolve over the life of the project – avoiding the "wait for two years big bang." This also applies to avoiding the iteration concept that allows deliverables to evolve until they are useful. This should not be confused with rapid prototyping which is really used for trial-and-error experimentation.

Strategy Related Responsibilities

Strategic Translation – strategy implements vision, but that is still conceptual. The strategy translation moves the conceptual requirements into a new future-state concept model with capabilities identified and the interaction between major components clearly defined. The Transformation Architect ensures correct management alignment to strategic identified business and automation capabilities. This architect is also responsible for working with the business function transformation managers individually and in cooperative collaboration groups to determine the scope of each transformation phase or improvement. In some cases, it will be advantageous to have multiple functions being rebuilt concurrently.

Strategic Transformation

- Strategic Operating Design – the Transformation Architect will blend the separate components of the business function design together and the project plan steps to make certain each step delivers useful, measurable components of the overall solution that can be added to the business function components to provide an immediately useful part of the solution.
- Strategic Evolution Process – because the pace of change due to Hyperautomation or Advanced Technology use is both constant and frequent, the Transformation Architect will work with the Business and other architects to create a very flexible strategic evolution process allowing new automation and other technologies to be adopted and the business operation designs evolved at any time.

- Time, Cost, Staffing Balancing – to determine any one of these components, the Hyper Transformation Architect will work with the project sponsors and senior management to optimize the balance of time, cost, staff, and set expectations.

Operational Responsibilities

The business operation managers work with the Process and Hyperautomation Architects to determine the optimal organization structure and geographical locations for work distribution. Their goal is to create an optimal organization model supported by streamline processes and their grouped activities as they are divided into business functions. These groupings of activities align to the process hierarchy.

Operational Transformation

- Organization structure and operating unit locations – the Hyperautomation-supported organization will need extreme flexibility to support the innovation and ongoing changes in the operation work locations, union involvement, and more. The Hyperautomation Architect will work with several different specialists both in the transformation group and in the business operation (financial experts, lawyers, union representatives, and HR) to create a flexible operating model.
- Staffing level models – the process models and anticipated Hyperautomation-based operation changes may take advantage of simulation modeling and sales forecasts to create skill and competency models with performance assumptions to create staffing level models by seasons. These models can be adjusted over time to improve their accuracy.
- Staffing competency and skills matrices – once the work is defined in each of the phases in the Hyperautomation transformation evolution, it will be possible to anticipate competency requirements, the number of people needed with each major competency grouping, and the number of people in each experience level.
- Staffing cost models – once the number of people in each competency group are estimated, and the number in each competency level are known, HR will work with business and IT leaders to determine the cost models.
- Training programs and competency testing – in the age of Hyperautomation, it is critical that people in all skill groups remain competent in the latest concepts, technology releases, and competitive innovations. This requires an investment in people as they develop skills in their competency areas and build their talent and value to the company. The training programs will be defined with input from all six Hyperautomation Transformation Architect groups.

Organizational Responsibilities

The organization models are change responders as they react to transformation level changes driven by Hyperautomation and Advanced Technology adoption, and the need to modernize the business through a transformational rethinking of the business, its market, the customer, and the way work will be spread among multiple geographies.

- As the business model and locations change, the organization will change. As new skills and competencies are added, new training programs and new urgencies are determined, and new work models are designed, the organization and staffing models will also change.
- Union and other external drivers will also need to be considered and accommodated in the new organization model.
- These needs will be coordinated by the Transformation Architect working with the other five architects.

These broad responsibilities reflect the broad nature of the Transformation Architect in the transformation process. This person will have overall daily responsibility for the transformation – understanding all of the five discipline specialties, as well as the four dimensions and the overall approach outlines throughout this book. This person must also be innovative and collaborative – and willing to evolve his or her skills as the nature of the Hyperautomation and Advanced Technologies changes.

Digital Related Responsibilities

The Transformation Architect will be a co-equal manager with IT, the CIO or CTO, and the head of research whose group keeps track of Advanced Technologies. In fact, often the Transformation role is a Vice President level position reporting to the CEO. These managers will form a cooperative collaboration group for automation and innovation that will be supported by the five architect types and their disciplines. All ideas for innovation and all automation changes will be discussed by this group and recommendations made to the senior leaders of the company. Approved proposals will be implemented through a collaboration of this group.

- Digital Strategy – work with IT Architect, CTO, and CIO to create a Digital Transformation strategy that aligns to the business operating vison, future-state high-level business model, the process transformation model, and the capability build in the Business Transformation evolution model.

- Digital Capabilities – advise IT Architect on the digital capabilities that need to be available for the business activities in the digital architecture and infrastructure models.
- Investment Plans – help the Digital Architects create a Digital Transformation investment plan aligned to the Business Transformation evolution plan.
- Requirements – works with the Process and Digital Architects to translate business models into application development or in Hyperautomation platforms low code or no code application generation.

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The Business Architect

The Business Architect focuses on aligning leadership around the business strategy and the capabilities and operating model that are needed to achieve desired business results. These architects define the capabilities needed to deliver products and goals and design a conceptual future-state business model that is designed to deliver these strategic capabilities. Working with the Process Architect, the Business Architect will align capabilities with current processes and evaluating the operation, identify and design missing capabilities. Business Architects are responsible for:

- Enterprise Strategy Execution Planning – describes where and how the organization is going to play in company's chosen market. Makes certain the strategy, the capabilities, and the project outcome is compelling, clear, and differentiated. Consider it the "North Star" from which the CEO creates employee and organization alignment.

- Value Differentiation – defines how an organization is unique and superior to its competition. Establishes a compelling case for competitive differentiation and defines its impact on the company's strategy and capabilities. Many follow the approach presented in the "Blue/Red Ocean Strategy" by W. Chan Kim and Renee Mauborgne. This approach is instrumental in defining competitive differentiation and is recommended.
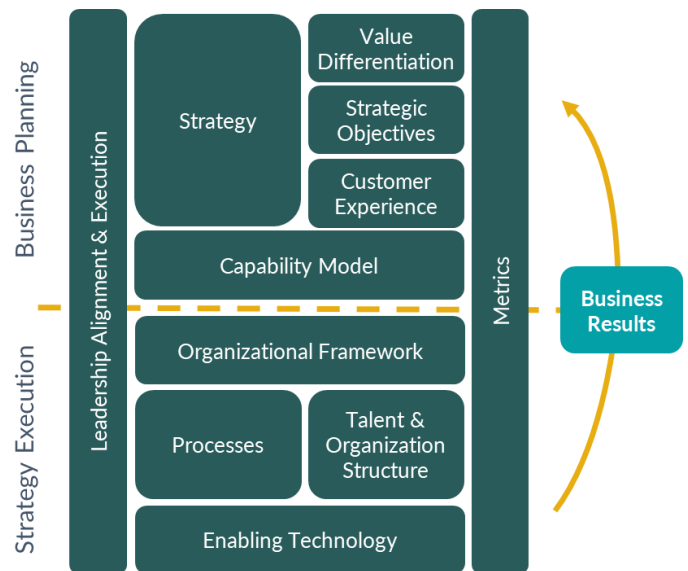
- Strategic Objectives Definition – defines the vital set of measurable targets that need to be achieved to deliver the business strategy. These are used to align and rally the entire organization around a common set of clearly defined goals to drive and reward performance. Research tells us that employees need to understand how their work aligns with and contributes to the successful delivery of these objectives.

- Customer Experience Framework Model – outlines what is needed to allow a customer to create and maintain a relationship with an organization that is unique and different from relationships with competitors. The customer experience is the result of any interaction – from initial contact through purchase to problem resolution.

- Enterprise Capability Model – defines what business capabilities are needed to execute the strategy … flawlessly. It identifies those capabilities that link back to the strategic objectives to enable the delivery of strategic results and helps assess the capabilities needed to be executed. This model forms the basis to build an investment roadmap, to prioritize investment in capabilities, and understand which projects need to be funded to close capability gaps.

- Enterprise Processes – defines the business and functional processes that are vital to delivering on the organization's commitment to customers. By making these processes more effective and efficient, the cost basis and how delivery is executed are transformed.

- Talent and Organization Structure – works with the Organizational Architect to ensure that the organization is aligned to the capabilities needed to deliver optimal performance and that the right talent is in the right roles to deliver the strategy.

- Enabling Technology – works with the Technology Architect to align IT and business strategy to ensure that technology investments and business needs are synchronized. By making deliberate investments in the increasing cost of technology so that "just-in-time" delivery of needed IT solutions to run the business are provided.

- Leadership Alignment and Execution – works with the Organizational Architect to ensure the overall strategy and defines what the business aspires to be – Operational Transformation delivers the ability to support this strategy through flexible change to the business operating model. The path forward is through deliberate and sustained understanding and articulation of the business model required to drive strategy. It is vital to ensure the fiscal and organizational health today as the foundation to transform the organization into the market leader of tomorrow. The best strategy is only as good as the organization's ability to execute it. This execution is where an ability to change quickly with low cost and low risk, when necessary, becomes critical.

- Metrics – works with the leadership to establish vital leading indicators to confirm that you are on the path to achieving desired business results while providing the customer with a valued and differentiated experience. Too often adequate and relevant measures of both internal (operating) and external (customer and partner) performance are lacking or are insufficient.

With this integrated view of strategy to execution, the Business Architect works with the other Architects of Transformation to plan, design, and implement the overall transformation agenda.

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Experience Architect
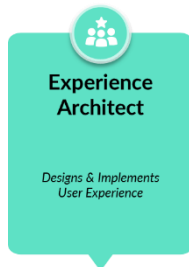
The Experience Architect focuses on designing and delivering differentiated experiences that enable the customer, your employees, and your business partners. Your customers expect more with each new purchase. Their experience needs not only to be simple and deliver expeditions, but to constantly improve with new features that enhance the buying experience, turning positive experiences into a loyal relationship.

Employees need to interact with the systems, process, and people around them in seamless and consistent ways, even as things constantly change and evolve. The goal is to ensure that people can navigate easily across all parts of the organization to expedite their work, find needed information, and/or perform an activity. The Experience Architect makes certain all parts of any interaction with the company are easy, positive, and stress-free.

Finally, your external business partners want to work with your organization in ways that make the interaction simple and cost-efficient for them, while meeting the expectations that have been established for a healthy partnership. Understanding business partner needs and designing processes to ensure the continuity of partner deliverables and ease of interaction, are critical to your organization's ability to serve your customers.

There are six elements to the Experience Architect framework. Each is tailored for the stakeholders; customers, employees and business partners as described in the next section. As you walk through the different elements, consider how your organization is currently performing and where improvement

opportunities exist. All interactions will then be designed to deepen your relationship with each stakeholder in ways that set you apart from your competition.

Experience Architect is responsible for:

- <u>Overall usability of application systems</u> – applications are often difficult to use and seem to be built by technologists for technologists to use. It is critical that the systems be intuitive and very easy to use. Where possible, the application designer should introduce some form of gamification to make the user have fun as they use the application. This is a new requirement and is focused on making systems less tactical and creating an experience that will bring the customer back to order more.

- <u>Design of computer screen layouts</u> – past computer screens for data entry or results display were often overcrowded and confusing, making users feel uncomfortable and in extreme cases, feel "dumb." Today, each screen in an application, and regardless of whether it is for data entry or information display, should meet standard design rules. These include uncluttered layouts, automatic movement from each screen to the next as the data is filled in, meaningful and brief but complete instructions in as many places as they are needed. And the list goes on. Standards for screen layout can be obtained from most vendors from the internet – but all must be modified for your company and its internal culture. To test the ease of use, pull random people from the company and have them buy something or look up something. Get their opinions of the screens and navigation. This aspect of designing a new Hyperautomation solution is critical and will make or break expectation-based evaluation.

- <u>Design of all forms, reports, ID cards</u> – today utilitarian looking documents are being replaced with ones that are easy to read and have sufficient space for the requested information. Forms and cards that fail to provide enough space for the information requested result in illegible scribble as people write/print where they can. Reports that are cluttered or difficult to understand are also a problem that the Experience Architect role is meant to fix. Reports that pack too much information on a page or use a font no one can read are frustrating and not an asset to the company. Again, the goal is to pull in customers, not drive them away. That is the real job of the Experience Architect.

- <u>The navigation within application systems or system groups</u> – most applications require anyone interacting with them to go through multiple screens or pages to do anything. The movement through the application's screens can be complex or well designed. The Experience Architect's role is to make any journey through a company's applications as easy and simplistic as possible.

Mapping the Customer, Employee, and Business Partners across the experience framework.

	Customer	Employees	Business Partner
Attract Me	Identify mechanisms to engage your target audience by offering an experience that is unique and a differentiated portfolio of products/ solutions.	Defining why your organization is a "Great" place to work and contribute is essential in defining your "People Brand". In spite of the ups and downs of the economy, good people have multiple employment choices. To be successful, your organization needs to attract and retain the best possible people to achieve your goals.	Selecting a business partner is a thoughtful process. They must be able to deliver on the commitment expected, have processes in place to mediate relationship issues, and most importantly, be committed to a long-term and mutually beneficial relationship. Otherwise, both parties will suffer.
Get Me Started	This is the front end of the sales process that engages the customer in a simple and seamless way while offering mechanisms to continue to purchase, gain access to customer support (as needed) and attract the customer to repeat purchases.

This is done based on what you offer the market and your customer profiles. It needs to be intentionally designed as flaws in the process will quickly alienate your customer. | People begin their employment journey with a job opening and it ends with being hired. Too many organizations fail to recognize that a poor hiring process (delays, confusion, excessive interviewing, poor follow-up) quickly sours people's desire to be employed by you.

Design your job posting to a hiring process with people as the focus. | On boarding a new business partner is similar to an employee. Expectations need to be clearly established and processes installed to measure both parties' performance.

Communication is paramount to a positive relationship. Disappointments de-evolve into finger pointing and legal action that is costly and often unnecessary. |
| **Develop Me** | Consideration and mechanisms are built to deepen the customer relationship by offering incentives to continue buying (loyalty programs) and seek additional products/services. | People value organizations that invest in them, indicate that they will have not only a job, but a career as the organization continues to evolve. Skill and capability development are among the most valued today. | Constant investment in the business partner relationship ensures that both parties remain aligned and gain value from the relationship. |
| **Manage My Performance** | Constantly monitor the experience that is being delivered to your customer. Hold times, errors, quality, inattentive service staff are failure points that are often overlooked with the pace of business but are essential to constantly delighting your customer. | Performance of your people is a two-way street. We expect our people to accomplish the deliverables and make the best decisions for the organization.

Recognize that your employees are constantly evaluating if your organization is best for them. | As with employees, establishing formal performance expectations with consistent monitoring to address gaps is vital to a healthy relationship. This goes both ways. Is the business partner meeting their obligations, and is your organization following suit to make the relationship mutually beneficial? |
| **Engage And Motivate Me** | Developing new ways to interact with and provide services/solutions to your customer is critical. The creativity that is displayed in capturing and continuing to engage your customers will ensure their commitment to your brand. | People no longer tolerate simply being cogs in a larger organization. They are seeking meaning and purpose to the work we ask of them. A well-defined employee experience leads to engagement and high performance. | Putting in place constantly evolving performance expectations, on both sides, ensure that there is a focus on continuously improving the partnership and solidifying the relationship. |
| **Wish Me Farewell** | Customers come and go. Yet there is much to be learned as to why a customer chooses to purchase elsewhere. Understanding why the customer dropped you in lieu of another organization is critical to constantly reimagining the customer experience so that you minimize customer loss and the associated cost of new customer acquisition. | No employee remains in an organization forever. People choose to leave (better opportunity, retirement, etc.) or are severed from the organization.

Understanding the root causes of early departure is critical to improving the experience for all employees while reducing the cost of unnecessary attrition. | Business partnerships end. Understanding why it is essential to the costs and disruption caused by severing these relationships. |

We all evaluate our relationship with others based on the mutual experience each has. Understanding and setting expectations is just the first step in an evolving relationship between your organization and its customers, your employees, and your business partners.

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Process Architect

The Process Architect works with all the five other architects to determine what steps can be taken immediately to streamline the current operation, reduce error, reduce cost, and improve the outcome of the work being executed in every part of the processes. This begins with the creation of current-state models defining the business operation and its analysis to recommend immediate performance improvement. They then align strategy to the current operation looking for disconnects and low cost, fast ways to better align the work with the strategy. They are then responsible for the future-state business operating design and making certain all capabilities are supported. This continues as the future-state operating design is completed to a detailed level – showing automation support and work cadence. Because this is one of the main drivers behind the requirements definition for IT in any Digital Transformation (to make certain the Hyperautomation platforms can support needs), the Process Architects will continue to work with the automation teams helping them interpret the support needs presented in the new business design. As the approach being recommended is one of an evolution with incremental progress in functional phases, the Process Architect will help make certain each function performs as envisioned.
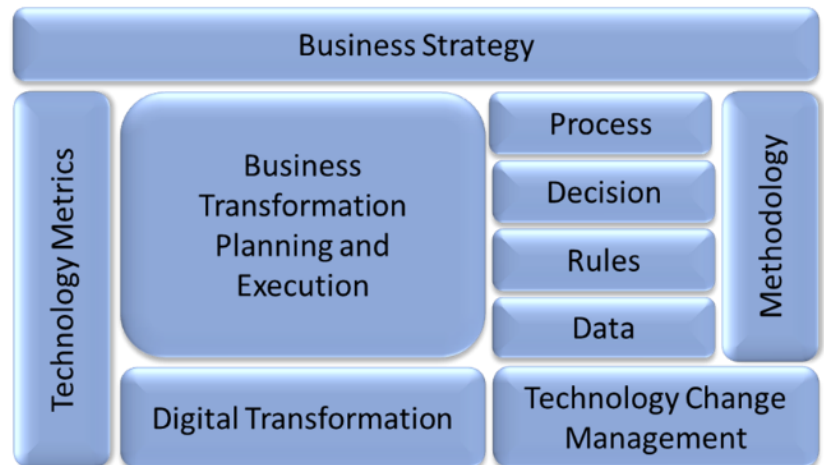
The Process Architect is responsible for:

- Business Transformation Planning and Execution – the Business Transformation plan is created in a joint effort between the sponsor and the six architects of transformation to plan the future-state design and the evolution development plan. Then, with these architects and finance, they determine the cost and benefits for each phase of the

evolution. Works with the IT Architects to determine automation support needs, defining how Intelligent Technology OpEx – excellence in design, build, run, and govern can be applied and what Hyperautomation platforms will be used - including BPMS, RPA, CC, ML, AI, and the management of these platforms. Works with multiple architects to identify how the teams will prepare for the implementation of Continuous Hyper Transformation and defining how progress and expense tracking for the transformation business redesign and redevelopment activity will be monitored.

Following the acceptance of the transformation plan, the Process Architect works with the Technology Architect to plan the automation architecture for the entire new business operation and the automation needs for each phase in the evolution build. Monitors progress in all parts of the transformation construction and deployment.

- Technology Metrics Requirements and Placement in the Workflow – applications, networks, hardware, and many other automation components needed to deliver an automated service can experience delays, execution problems, data problems and upstream delays. These possible issues and others should be monitored, and their impact noted. Although eventually all should be addressed, the operational IT issues that have a significant impact on the overall process should be addressed as soon as possible – the correction will have a definable benefit that may well pay for the fix. Corrective action will include monitoring/impact analysis/evaluation and recommendation reporting, and workflow impact estimates along with a correction estimation and readiness analysis. Throughout this pre-transformation correction process the objective will be to work with IT to estimate the cost of efforts to identify what components are performing well, where holes in support exist and why, and what can be done to take immediate corrective action.

- Digital Transformation Business Requirement Identification – Digital Transformation is not strictly an IT action as it must be guided by a combination of business operation vision, capability needs, process transformation requirements, associated hardware inventory, hardware infrastructure needs, application development approaches, and low to no code application generation and change needs. The Digital Transformation strategy will align with the timing and plans of the business Operational Transformation design and build.

- Process Redesign and Performance Management – process means different things to different people and different companies. The term is used to describe simple (only a few steps) work that people do to complex multi-function end-to-end groups of work or processes. These processes describe what work is done, when, why, and how. The Process Architect is responsible for the following process-related work. The Process Architect works with Finance, Legal, and other organization managers to determine what information is needed and when. Working with IT, the sources of this information can be identified, and the issues resolved. To make certain these and other issues do

not reoccur, the Process Architect defines and designs the performance and other information needed to monitor for situation reoccurrence.

- Business Requirements for Technology Change Management – over time, applications and the business operations will need to change in response to emerging Hyperautomation capabilities and other change drivers. These changes may be any size and of any complexity. As with all change, the changes should be planned and their impact on other parts of the business evaluated. As both legacy application changes and new Hyperautomation systems are tested, both the operation and IT need to prepare for smooth transition. This begins with formal change management activities to avoid rumors and panic. Testing will continue with both normal application testing and "model office testing."

  Model office testing is a type of live parallel testing in a controlled environment that simulates the actual business operation being replaced. This requires the construction of a full replica of the business functions being addressed in the Hyper Transformation evolution phase. This simulated business operation allows the solution's UX design, as well as the performance of the solution, to be tested by the people who will use it and the solution to be improved where needed – before it is deployed. This approach also allows people to be trained using a semi-live version of the applications and the process. Application bugs and issues are shaken out and people's training tested/reinforced.

The Process Architect is an expert in operational optimization and workflow efficiency. They are responsible for streamlining all parts of the work and workflow along with the applications that are available and the competencies of the people that are involved in executing the processes and workflows. In this way, the Process Architects are or become experts in all aspects of the business operation and apply creativity and innovation in both optimizing work and eliminating problems.

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The Organization Architect

Organization Architect

*Designs & Implements Organization Change*

Organizations are not static. They evolve for a wide variety of reasons. In any Business Transformation, they can be expected to change along with the capabilities that are needed to produce products or services. In addition, the geographical distribution of work, the virtual workplace, and how that work will be supported is causing many organizations to be rethought.

The Organization Architect ensures that effective change plans are built into all projects, determines how best to implement adaptive organization structures that anticipate future change, place the right people into the right roles, and provide them with opportunities to develop their capabilities while expanding their value to the organization, work with leadership to understand the implications of change, and how to build change as capability across the organization.

These are the key levers that are at the disposal of an Organization Architect.
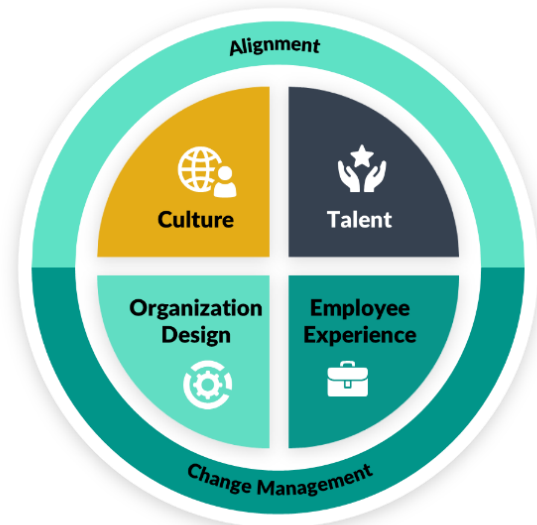
- Alignment - ensures that the leadership team is in sync around the overall business strategy and associated objectives. It ensures that leadership has a shared vision around where it wants to take the organization and is clear on how, as a team, the strategy will be executed and finally, provides the context for leadership to be constantly communicating across and down the organization to ensure everyone understands how their role contributes to achievement of strategic objectives.

- Culture – work with leadership to define and communicate the values, norms, assumptions, beliefs, and behaviors that underly the organization and informed decision making, management style and how people will behave toward one another. This provides a set of shared assumptions that guide what happens in organizations by defining behavior for various situations.

- Talent – the staffing plan that ensures that you have the best people, in the right jobs held accountable for results that align with the overall business strategy. It defines the makeup of the workforce that will deliver results based on what needs to be done, how it will be accomplished, and where it is done best. With it, technical skills can be leveraged to deliver consistency while applying adaptive skills to new challenges. Finally, by providing opportunities and investing in people, engagement will be improved and the cost burden of retention reduced. The Organization Architect is responsible for making certain that the people with the right skills, experiences and competencies are assigned to the right business functions and jobs within these functions. The Process Architect will define what is needed based on the business operating models and the Organization Architect will confirm the needs from a process and automation perspective and present the staffing model to management for approval when the new operating model development begins. Unless each part of the

staffing model has been presold to management, the approved staffing may change the business model and the proposed operation design – causing a design rework.

- Organization Design - is the way a company arranges employees and defines positions to achieve the goals of an organization. It ensures clarity around what each person is accountable for and how their role supports the overall strategy. It seeks to drive decision making down to the point at which an event is occurring. Finally, it is adaptive, and the capability-based design allows the organization to focus on the customer experience while driving the efficiency and effectiveness of end-to-end processes. As the new business operating model is finished and the automation design is aligned to the business functions, the project team will consider how the people will be organized and the location of the work. This review and staffing design will be led by the Organization Architect. Some functions may be outsourced to specialists, and some moved to other locations where specific machinery or clients are located. And some will stay in the main location of the company. All have implications on staffing and skill allocation. Once approved by executive management, the relocation of the work and the identification of the needed skills along with the number of people who will be needed in each location will then drive the staffing and training plans. At this point, the Organization Architect will work with Human Resources to adjust staff and bring the right people into each location.

- Employee Engagement - provides the conditions for all members of an organization to give their best each day, committed to their organization's goals and values, motivated to contribute to organizational success, with an enhanced sense of their own well-being. It is based on trust, integrity, two-way commitment, and communication between leadership and the members of the organization. It can be measured. It varies from poor to excellent, and finally, it directly contributes to an organization's success.

- Change Management – creates and manages a planned approach to change needed to achieve the desired transformation. The objective is to maximize the collective efforts of all people involved in the change while minimizing the risk of failure resulting from its implementation. It deals with the human aspect of change and how we support individuals through a change cycle. In this context, there are two basic types of change management. One deals with people and their fear of being fired or put into a job they cannot do with people they don't like. The other type is for managing how the business will actually change – how it will be implemented. The Organization Architect is involved in both types of changes as the person controlling the type of change management that deals with employee concerns and as a key participant in the

implementation of any large change – making certain people are trained and available and deployed to their work locations when the new operation is implemented.

People are essential to the operating and continuously evolving nature of organizations. Yet as change and disruption occur, the role people play shifts. Recognizing that people are core to your organizations continued success allows leadership to ensure that people are recognized and are provided an environment to grow and evolve with time.

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Technology Architect

Technology Architect

Designs & Implements Technology Change

To transform any part of a business, you must first understand it and what it is and is not capable of doing. In IT this includes all hardware, middleware, data handling and management, applications, and their operational status with interfaces and use.

The Technology Architect role is highly collaborative, working with the appropriate IT specialists to model the current IT infrastructure, including remote locations, and with the Business, Process, Organizational, and Experience Architects on transformation projects. This multi-perspective collaboration will provide an up-to-date picture of how automation support is provided and how information flows from application to application.

In the future, the Technology Architect's role will evolve as it expands to cover an ongoing evaluation of major Hyperautomation products along with an evolving definition of features, capabilities, and evolution. These products today are themselves both changing and expanding. For example, the leading iBPM vendors have incorporated RPA and advanced data management capabilities. They are also moving into the realm of AI and may soon have integrated most types of what is considered to be Hyperautomation products. This integration of offerings with differing objectives and capabilities makes these tool groups function as integrated platforms where data, rules, models, and more are available to all tools on the platforms.

This provides a level of technology independence – using the right type of automation technology for the right job while providing solution interfacing with data passing much easier than today.

When properly architected, a solution will be able to interact with any system on the platform and with legacy applications over semi-custom application program interfaces. In these interactions with legacy applications, it is possible to use the legacy application as you replace it function by function until it is replaced. This approach will make the elimination of legacy applications feasible and limit any disruptions.

The goal is technology independence where all components work together as if they were built in a single application platform and are interoperable.
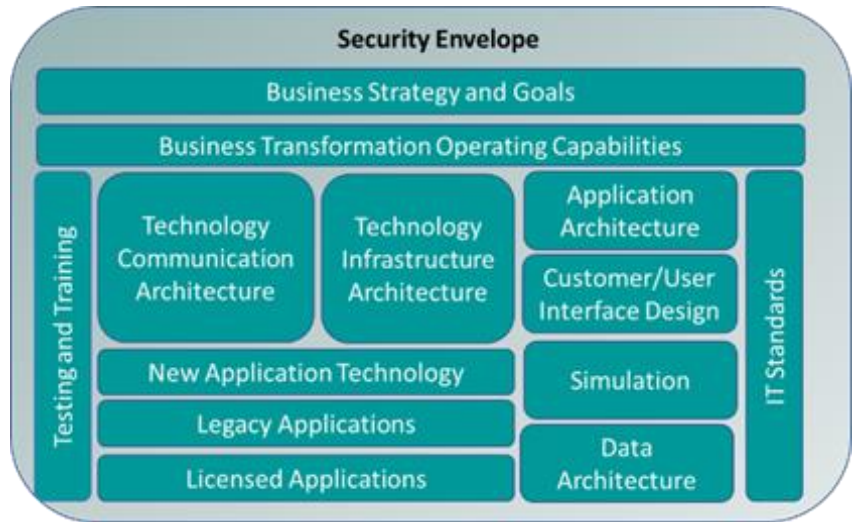
The Technology Architect is responsible for the individual components of an IT service as listed in the reference model:

- Security Envelope – The Technology Architect will work with the IT security analysts to design IT security capabilities into the automation side of the transformation solution. Together, they share responsibility for the security of the transformed operation when it is running. These capabilities will constantly be on the alert for breaches. These security restrictions will create mitigation capabilities to limit any potential breaches and then close the weakness that was exploited. Companies are at a constant threat from data theft, the introduction of malicious application code, and much more. This component of IT is critical – as is getting it right.

- Business Strategy and Goals – IT groups need direction on how the business will change and what capabilities it will need to maximize the impact of automation capabilities on the business operation and determine the best Digital Transformation strategy. The Technology Architect aligns the digital strategy and transformation design to business strategy and process transformation, to determine how to redesign the automation infrastructure, obtain the right hardware, and maximize the impact of automation capabilities on change flexibility, operational optimization, and efficiency. This information is given to the people responsible for the technology infrastructure.

- Business Transformation Operating Capabilities –The identification of transformation operating capabilities is driven by the new business model and the order that the business functions will be built in. This will define the capabilities that will be needed at each phase of the evolution plan. These capabilities will be used to determine requirements and deliverables with the benefits that will be expected from each. The

Technology Architect will work with the Process Architect to determine the technology capabilities and the applications that will be needed in each of the transformation's phases. This will be confirmed in a collaborate effort with all of the architects and affected business and IT managers involved.

- Testing and Training – Testing is often informal and does not follow a formal test plan. The Technology Architect is responsible for both the test plan and the testing of each application in each phase of the solution build. Today, testing is often inadequate to really put an application through the situations that may be encountered. This is equally true for legacy and Hyperautomation-built applications. Traditionally the testing is to prove the application functions properly and not to see if it can be broken. This is a reason that delivered applications often have multiple "bugs" that will be worked out over time. Applications should work flawlessly where possible. This goal may not however be possible in heavily rule-based platforms because it is almost impossible to find all the rules or define all the situations that will affect the operation. In these cases, the system should be set to define errors and what they caused as the situations are encountered. Once found, the rules omissions in the applications can be corrected. This process could take a year to complete – find and address all error situations that will be encountered. That does not mean the application will not be usable. It means that, for some time, the application will reject transactions that rules do not address. But by correcting the omissions, the application will eventually have found all the missing rules.

- Technology Communication Architecture - this is a constantly changing area in automation management. We have moved from 4G to 5G and soon to 6G. Tesla and others are looking for ways to totally change communication in the future and new advanced communication hardware is being experimented with. In addition to the disruption that is coming, companies will need to invest in new hardware and modifications to applications and web interfaces for customers. Because this is the way customers will interact with the company, care must be taken to make certain there is built-in access redundancy and improved communication and security.

- Technology Infrastructure Architecture - as a result of constant additions and modifications to hardware and technical operating system software, most IT operations have hardware infrastructures that have long since exceeded limits of their original designs. This has hurt efficiency and flexibility, but it has delivered individual "best of breed" solutions. This approach may now need to be rethought in light of the integration capabilities of vendor multi-tool platforms and their impact on Digital Transformation, change flexibility, and costs.

- New Application Technology – as new Hyperautomation platforms produce new applications, some older legacy applications will be sunset and new technology-based ones will be put in place. However, unlike the past where applications were used for 20

years or more due to slowly advancing technologies, the current advances in both Hyperautomation and Advanced Technology are a constant stream of capability increases. This is why it is critical that IT operations today have the ability to modify or replace applications generated from Hyperautomation platforms fast. Why? We can anticipate a situation where competing companies constantly leap frog one another in ways to reach and interact with customers, and those companies that cannot keep up in this game will fall behind and eventually become irrelevant with their old tech.

- Legacy Applications – legacy applications can be viewed either as any applications in a company's inventory or any applications that were built in older computer languages such as Cobol, Assembler, Fortran, CICS or a variety of other application development languages. These applications have generally been modified numerous times and are a patchwork of program code from multiple programmers with little useful documentation on the changes. Managing the use and changes to these applications is critical as they can be considered to run large parts of the company's business operations. However, they are difficult to change, interface or use, and require considerable oversight.

- Licensed Applications – the large vendor supplies special purpose applications that support parts of the business-like financial applications, payroll, sales, and more. These are not meant to be changed by the customer companies who license them and require that the business in the areas each supports to be redesigned around the licensed applications. Changes that are required by law are usually taken care of by the vendor but still require installation time effort – especially if a company has paid the vendor to make changes that customized their version of the product. This is also true if the company has not kept current on the vendor supplied "updates" to add different capabilities to their applications.

- Application Architecture – every application design reflects the attitude, ability, perspective, and capability of the designer and the development team. It reflects what is possible given the application development or definition platform and its capabilities and the capabilities of the design and development teams. In Hyperautomation platforms with iBPMS, RPA, AI, and other capabilities, the application designs take on a new level of complexity as part of a transformation level solution may mix the use of all of these application development tools, as well as tools that are external to the Hyperautomation platform (s) in the company (such as voice interaction and cognitive computing). This also applies to the use of iBPMS capabilities to allow applications from any base technology to tie into a type of communication to all applications in a solution through the use of Application Program Interfaces.

- Customer/User Interface Design – design and build easy-to-use, intuitive person/machine interfaces that require minimal training and ongoing guidance. This is especially important for efficiency in how internal staff will use the solution and in the

ability of customers to literally log in untrained in the solution's use and easily use the solutions. This is an area where the transformation team may want to have focus groups of internal and target customer profile people use the new applications and provide user feedback for a final solution design/construction change.

- Simulation – simulation capabilities play a significant role in operational analysis and defining/eliminating bottlenecks, load breaking points, and work streamlining. This requires specialization – different application tools and different skill development. This is a tool that is often underutilized as applications are viewed independently from all those it may interact with.

- Data Architecture – clear definitions of all data elements along with their relations to other data elements used to standardize data definitions and technical specifications of data for consistent use and quality. Today this will include looking at the digital future needs and how current data bases will change and migrate to future technology adoption. This action is closely tied to digital security capabilities across all platforms used by the company for data storage and long-term retention. The Data Architects work closely with the Business Architects and digital security specialists to control access and limit an individual's visibility into stored data.

- IT Standards – the rules for all IT work that are used to promote consistency and interoperability between applications definition and development, and data use.

- Security – working with the IT security architects makes certain that access and data security is tight.

The Technology Architect is an expert in both legacy and Hyperautomation technologies. They advise senior IT management, Hyperautomation Architects, senior business leaders and others as needed on what new Hyperautomation capabilities are becoming available and working with company innovators, what the technologies may be used for and how it can provide a competitive advantage.

The six architects in our approach to Hyperautomation Transformation are a major difference in this approach. The impact is that not only is every discipline engaged, but also all different perspectives are blended into a single view of the business and its automation support. This view is the foundation for innovation driven by both Hyperautomation platform capability and market opportunity. This is the foundation for creating the business and IT infrastructures needed to support rapid change and cost-efficient operations – supported by highly competent managers and staff.

The result is acceptance by company managers and staff along with an opportunity to tie closer to customers and increase relevancy through interaction simplification and consistently successful customer interactions.

Chapter 8: Transformation, Obsolescence and Hyperautomation

Nothing Is Forever

Everything always has a life cycle – including every product; even wooden baseball bats are mostly now replaced by aluminum ones. Try to think of some product or service that hasn't eventually changed making the old obsolete.

This is also true for how we all approach things. That fact is the foundation of evolution, as the new obsoletes the old. However, it is also true that many things that should be replaced seem to hang on forever. An example is legacy applications that should have been replaced long ago and now act as constraints to effective and efficient business operations and improving customer interaction as companies try to constantly modify them and build extensions to make them try to function in ways they were never meant to.

Although this is inefficient and often ineffective, many of the legacy applications have become so complex due to ongoing change, that understanding what they really do and the rules that drive them has become extremely costly and risky. Consequently, they are left alone as long as they don't break or some disruptive external event occurs, such as the government forcing a company to make changes through new regulations. But that is the past as the new capabilities of the Hyperautomation platforms are changing these constraints.

So, we must now ask if some activity or service that is being performed by the legacy environment is still really functioning at an acceptable level or should be considered to be obsolete and included in the list of capabilities, tools, concepts, and approaches that we need to set aside and replace. Of course, this replacement takes investment but if approached incrementally as part of a Hyperautomation driven Business Transformation and its evolution-based approach to construction, it is affordable, and when considered against the impact of the legacy version with its limitations and escalating maintenance costs, is cost effective. But this assumes that the replacement effort will not be considered alone. If it is part of a Strategic Transformation, its cost will be looked at differently – as will its benefits.

One of the major differences is that by using the Hyperautomation tool platforms of today these obsolete applications, business operations, and management concepts can be replaced inexpensively through low code and soon generally available "no code" application generation capabilities.

As with many things we talk about in this book, this capability is not years in the future – it is here now. The business models that every company should have and should keep up-to-date in the selected Hyperautomation platform's business model libraries, along with supporting rules and other information, may need to be updated or improved to offer additional information on problems and application use, but once improved, are the foundation for future application definition, requirements, and generation. At this point, replacement of legacy applications becomes cost-effective as operational efficiency and effectiveness increases.

When this replacement is part of a Business Transformation, and that transformation is based on Hyperautomation platforms, the legacy applications can be replaced at a much lower development and operating cost than ever before. This is why we recommend that these obsolete parts of the business operation, IT infrastructure and applications be considered as part of the Hyperautomation-enabled Business Transformation – what we are calling Hyper Transformation.

In addition, because Business Transformation has become a continuous activity driven by a variety of important constant drivers, we look at the current-state of business evolution as "Continuous" Hyper Transformation. This continuous characteristic allows transformation to become a type of broad but controlled evolution of the business at a business function level, once a comprehensive model of the new business is in place, to guide the integration of all the business function components as they are completed.

Obsolescence is Accelerating

Eventually all knowledge and every product become obsolete. For some things, the rate of aging to obsolescence is fast and for other things it seems that aging is not a factor. However, today this rate of change is accelerating based on automation technology and innovative technologies.

But the most advanced automation and technologies, are already accelerating faster than anticipated. And many of us aren't really aware of the underlying technology advances that are supporting this acceleration. For example, the Tesla Company is quietly advancing AI and seems to be designing and building cars around the AI brain to give it a whole new set of capabilities. This has been coupled with advanced sensors to take leaps toward fully autonomous operating vehicles. And the Artificial Intelligence brain will have full access to the internet and the Internet of Things (IoT) to know about road conditions and reroute cars to the fastest path to the destination. This also gives the AI brain a type of learning ability whose lessons can be shared with every car, truck, or whatever vehicle on the platform. And soon all communications will change with Starlink's move to reimagine internet connectivity and make 5G available to everyone. Think about Machine Learning then. Now look at the constant advances in battery technology and the change that is happening. We have read that some of the new family of lithium-Ion batteries can power cars for over 300 miles on a charge, with 600 in the near future.

But these are just several of thousands of examples of both software and technology advances that are happening quietly. The question is, "*How long will it take for what you do and how you do it to become obsolete?*"

Even in the past, little really stagnated. Things just changed slower and could be gradually integrated. The assembly line approach changed manufacturing. Early computers initially did

very little, and they were slow and cumbersome. But these and all other technologies evolved and as they did, they allowed other software and applications to be built on what these foundation technologies could now do. And yes, things changed, and old practices became obsolete.

Also, with each new advancement, some companies invested and adjusted, and some did not and eventually went out of business – some closing their doors, and some being acquired. Just look at the Fortune 500 companies from the list in the 1950s. Only 54 companies remain on the Fortune 500 list from this group. And some are struggling. But of the ones left, we can see foresight and innovation. For example, GM has stated that it will move to a product list of all electric cars by 2035 – and in general move to new technology. Also, Ford expects two-thirds of its commercial vehicle sales to be all-electric or plug-in hybrid by 2030, and all of its passenger vehicles will be pure battery-electric by then.

Ironically, within weeks of this announcement Volkswagen stated that 2026 will be the final year the group develops a combustion platform. In addition, the entire production chain for the product concept to delivery will be completely CO_2 neutral, including subcontractors, raw material extraction, the use of electricity and everything else.

Within the space of a few weeks, the GM and Ford seemingly ambitious plans were completely disrupted. With this both organizations neglected to ask one of the basic strategic planning questions, "*If I was my competition, what would I do next?*"

We are in the early stages of advances that will give adopters a serious advantage – while obsoleting much of what large cumbersome companies have to deal with.

A New Excellence

Along with the new automation and technology comes an opportunity to learn from past operational and IT architecture mistakes. Knowing that serious change is coming to every business, companies have a chance to build in both excellence and the analytics needed to maintain that excellence as they modify their operations and automation support. These programs include the lessons learned from past Six Sigma efforts and performance monitoring which should be built into the new operations and their processes. Future change can become centralized to make certain any improvement or response to legislation or competitive advancement can be simulated to determine its real impact on upstream and downstream activity. It can also be used to determine the real user experience and make interaction improvement to reduce time and increase customer acceptance.

Of course, building these capabilities into process redesign and the approaches that frame them, will make obsolete a great deal of the approaches of today, as the modern and emerging automation and technology will require a rethinking of most IT concepts – even those that are

emerging for data management. The fact is that this rethinking will become constant with each new approach being obsoleted in the future by new automation capabilities and new technical concepts, tools, and products. And as each approach, design, or concept becomes obsolete, the approach and possibly the definition of excellence may need to evolve to fit the new environment. This is because the complexity will increase and tolerances, ways to measure performance, and the tools we use, will both become more automated and more autonomous.

But what does it take to excel? Is buying new equipment or new software platforms all that you need to do to excel? While some have thought that was it, the lucky companies had senior leaders who knew that people were the key and that true craftsmen engineers, software experts, and highly experienced people in multiple business areas who could make "poor anything" work OK, were the real answer. As in the past, the tools that are used may be wonders and be able to do things that were considered to be impossible. But the people who create them and the people who innovate, as they consider how to use any product or group of products to deliver new useful capabilities, are the key to excellence and to innovation in creating value for customers. This fact is a competitive differentiator and leads to investment in your best people as the company evolves in the coming years. That is what will make any investment in automation or technology work and what will give your company a competitive advantage. These innovators are the people who will make or break a company and the more of them you build in all parts of the company, the better chance you will have of both excelling and supporting any vision or product the company's senior leaders believe will be needed to prosper.

But the life cycle of any product itself will be subject to rapid market and Hyperautomation change, and management will need to watch for the signs that will lead to the product's change from the traditional way it was viewed and its eventual obsolescence – as it is replaced by "a better mouse trap."

The Great Opportunity

The old adage that "*change is inevitable*" is clearly true, as is the fact that it really cannot be fully anticipated or controlled. Change just happens as smart people continue to invent and improve. It continues as other smart people who can envision a need and figure out how to take what was invented or improved and use it in other ways than it maybe was intended for.

This is the opportunity today. Pick an objective that will make people's lives better or achieve a goal that will change humanity for the better. Then figure out how to take new and emerging technology and do what has not been done before. This is difficult. It is much harder to create something new than to improve something that is already in operation. Both are important and both are needed, but the real market opportunity is to help make bold ideas possible.

For example, there is a goal of autonomous vehicles that most automobile manufacturers are moving toward. Yes, it seems that Tesla is moving to invent new AI capabilities to manage and direct these autonomous autos. But that is only a part of the picture. They will need advanced scanning to see what is around the auto as it drives. These scanners will need to operate equally well in the day and night. Optics and scanners are still only a small part of what is needed. They will need sensors to check the weather and turn on the windshield wipers for the riders (it is doubtful that the Artificial Intelligence brain cares).

And some day there will be flying autonomous autos. Think of the technology and software that will be needed. This is all open to innovation and in many cases, the creation of businesses around new needs. The question for business, given that what they are doing will become obsolete at some point, what will the company be positioned for, and how will management be able to tell when obsolescence is about to happen?

It can happen to your company if you are not vigilant.

A great example is Kodak who failed to realize that film photography was obsoleted the minute that mobile phones imbedded digital cameras. They had the first hint when digital Single Lens Reflex (SLR) cameras came into production. But they were expensive and required special PC software – and the big SLR companies had reaction time – which some used, and some did not. Today, there is little demand for camera film.

Motorola has a similar story with their mobile phones which were analog-based. When digital technology became an option, they waited and stayed with analog, and lost market dominance.

Create, Don't Just Compete

Anything that is new and also useful is great. You have no competition and an opportunity to build whatever you created into something new and exciting in your market. Delivering anything innovative sets your company apart and provides a competitive advantage. That is a good place to be in. The tough place is offering a mature product that others also offer. There will be differences, but whenever you compete strictly on price, things get tough.

We have seen contracts won or lost on a few pennies on the dollar difference. Of course, that will need to be reconsidered going forward. Capability trumps cost in the future – although there are limits. But the fact is that companies will rethink and reinvent themselves around the new concepts and capabilities that they can buy and leverage to innovate in their industry.

Let's look at Tesla again. It is an automobile company – yes. But did they stop there – no. Elon Musk reimagined the automotive and trucking industry and built a new vision of smart, autonomous vehicles. Then he backed that with an understanding that to reach that goal, he needed to become a leader in applied AI and cognitive technologies. Being Tesla, he even went

farther with the reimagining of the internet – which only he or a government could possibly pull off.

The change in front of all senior business and technology managers is one of staying the current course and continuing to chip away at improvement as you leverage some new automation, or reimagine your industry, how work could be done, how quality could be guaranteed, and how you can be creative and innovative – going where no one has gone before (Yes, we are Star Trek fans!). But it is applicable. Star Trek imagined technologies, some of which have now become commonplace, and changed the world. If you can do that as Tesla is doing, think what the results could be.

This is a major opportunity that is now available to everyone. Think out of your box. Move out of your comfort zone. Leverage new automation and new technology to rethink and recreate. And move into the spot where you can easily compete because there are clear differences that make your product unique and better.

So, we are all being challenged to rethink our reality and see what we can make happen that will help people worldwide. This is a reasonable challenge regardless of what you manufacture, what services you provide, or what software products you sell. Ask yourself, "*What are we really good at?*" "*What will blow the competition away?*" "*Is there really a market or can we create one?*"

What If?

Then ask, "*What will I need to invest to do this?*" Play what if. "*If I take X and use it to do Y, who will want the product?*" *If I add Z capability from a given new technology what will people think of the product?* "*Who will I help and what will the impact be?*" For example, robotic surgeons are guided by live surgeons who look at holograms of the part of the patient they will operate on and interactively direct the robot surgeon in a way that produces better results than in the past.

So, "find the need, fill the need" and people will come – if they hear about your product and can believe in your product. But that is advertising and a different issue.

This self-assessing will obsolete the ways of the past and for those who invest and innovate, provide an opportunity to open new product lines and new markets with limited competition.

This purposeful obsoleting of products, services, and thinking is the true competitive differentiator of the future. But this will take a serious shifting from the past and not all managers at any level will be able to abandon what they learned in their Business College graduate programs and in their past experiences. But they will need to leverage this experience and past skills and build on them. That is the basis for the upskilling that is discussed in different parts of this book.

Overnight Change

Of course, large companies will take longer to change out their obsoleted applications, IT infrastructure, and equipment. The issue is cost, not desire. This alone makes them vulnerable to smaller companies because they have less autocracy and less investment to convert and will move much more quickly – accelerating the obsolescence that larger companies will need to fight. But that simply means that larger companies will need to have the will and vision to plan to evolve to modern automation, procedures, new staff skills, and new approaches.

The strategies to do this will vary, but it is starting the journey that counts right now.

Chapter 9: Hyperautomation, Business and Digital Transformation - All Must Fit Together

An Integrated Ecosystem

Business Transformation is actually a conglomeration of separate but related business operation parts. This includes Process Transformation, Digital Transformation, Business Strategy Transformation, Organizational Transformation, and User Experience Transformation. It is also supported by finance and legal, as well as product production and delivery. Everything in every company is interrelated or its real need must be questioned. This fact is an underlying concept of business operation design and modeling, as well as in any form of Business Transformation.

Hyperautomation - Business Transformation Will Never Be the Same!

Aside from the impact that BPMS (Business Process Management Suite) tools have had on Business Transformation and its evolution as a discipline, their blending by the larger vendors into true tool environments that offer BPMS, RPA, AI, and Data Management capabilities is changing the game and the way it is played.

This chapter is, however, not about specific tools or vendors. It is about companies and their business operations and Business Transformation today. The tool side of this discussion will sort itself out – all of the major vendors' products are great and, while there are feature differences, all work once your applications developers figure out how to use them – despite claims, the tools are not that intuitive and take time to learn, especially for complex logic. But once developers are experienced, these tools are the foundation of the future in automation technology.

Instead, we will focus on the things that really make or break Business Transformation and look at the impact of this new generation of tools and of Hyperautomation in general.

Let's start with a prediction. Every company will need to transform their IT and digital operation over the next five to seven years or they will slowly go out of business. Gloomy? Not really. Those who do transformation have a bright future. But the ways of the past in approaching business and automation support are becoming anachronisms – companies that refuse to adopt appropriate new technology and modernize will simply not be able to compete. And of those that do modernize without upgrading their training programs and upskilling business and IT staff in new concepts, approaches and techniques will have a difficult time competing. For example, business and process analysts will need to understand decision modeling and rules analysis and definition. While they do not need to know how to actually build the tech side of the business models, they will need to understand how to build detailed business models that allow the BPMS/RPA/CC/ML/AI and other tools to generate application systems. The problem is that without advancing their skills, the company will simply not be able to move quickly enough to remain relevant as customer technology sophistication grows with the constant evolution of new technologies.

A key part of this change in approaching Business Transformation is that both Business and Digital Transformation are becoming comingled. It is no longer enough to look at Digital Transformation separate from the business strategy and the capabilities needed to execute the strategy through process. Strategy defines the operational capabilities and how the business operation will change. This, in turn, defines the business activities that must be enabled through automation and other technologies. Together, these three components determine what the business operation needs to be capable of doing and what capabilities digital technology must provide.

Establishing Relevance

Digital and Operational Transformation only become relevant to achieving strategy when one considers how well they will deliver the capabilities needed to compete and how well the solution supports rapid change. Any other approach just delivers "cool" technology that may or may not prove to add real value as related to market growth and profitability. This fact is why Digital Transformation does not do well as a standalone transformation. Does it really help to have great modern technology if it doesn't really improve the business or its ability to gain market share and increase profitability? That is why being driven by strategic capability and process optimization is critical to Digital Transformation success. It is also why a shift in "mindset" is needed.

Keeping strategy, operations or Process Transformation, and Digital Transformation as separate activities is also a significant contributing factor in the 70% failure rate of both types of transformation. The fact is that transformation must deliver value – enabling the company to succeed and gain market share – not simply save a few dollars.

For this reason, strategy-driven Business and Digital Transformation will be the foundation for looking at business evolution and the role that Hyperautomation will play in moving forward.

In addition, upscaling business and IT operations to have at least similar capabilities to your competition is daunting enough for most organizations. But how do you want to differ? What will give you an advantage? These are critical decisions. Given that Hyperautomation constantly offers companies and customers new capabilities, every company will need to totally rethink the way they interact with their customers. This rethinking needs to be ongoing looking at how the company can take advantage of the emerging tools and capabilities that are being released. This is the company's ability to look forward and determine what is useful and what is not - and this ability needs to be good.

And with every new capability, the business world and customer expectations change, and there is no going back to the old. Everything is just too interrelated to pull back apart and return to the old ways – which, when you think about it, weren't that good anyway. But with transformational level changes it becomes critical that the transformation process and the

results that are delivered are tightly controlled and the various people who are involved remain focused on achieving broad game changing goals of the effort. Where this control and focus are not in place, transformations get lost and fail to produce anticipated results.

Keeping Up with Everyone – Customer and Competition Technology Adoption

History has shown that customers adopt new technologies faster than companies and use it more creatively. So, that can be counted on as Hyperautomation continues to deliver new capabilities and advance technologies provide the foundation for innovation. Customers have also become technology literate, and most are sophisticated in their understanding of what is possible. They can recognize a poor interaction from a good one and when the technology behind an interaction is out of date. Thus, any customer interaction decisions become especially important.

As in the past, there will be early adopters and those who wait. There will be those who never seem to get it right and those who excel. To a large degree, the difference is related to the acceptance of new truths as markets, technologies, and customers evolve.

This chapter focuses on one of these new realities. This is that many business groups that were separate "silos" or business areas, can no longer stand alone. The most immediate example is the distance between almost every business area and IT, and the separation of Business and Digital Transformation. These business areas along with most others and the separate disciplines that provide structure to the way work is done must now combine under the umbrella of Hyper Transformation.

In response to these concerns, companies and their transformation efforts need to seriously consider how the business can be reintegrated from a workflow standpoint and how their processes' ongoing transformation can be controlled. In the past, customer technology was considered, but was often not a driving force. That has changed as companies must now keep up with the technology their customer base is using, where it is falling short, and what their competition is doing to leverage digital innovation to attract staff and customers. Management can then determine how they want to move forward and what type of customer experience they want to offer. For example, is voice interaction the best? Is an AI dialog better? How about conversational AI and Chat Bot. Or is a "keep it simple" approach best? There is a place for each of these Hyperautomation options in how each business unit will change during the Hyper Transformation. The decisions are simple - what will attract customers? and how do you balance investment with solution delivery time?

In spite of the fact that companies today loudly proclaim their concern for their customers, few really do. Look to your own experiences in dealing with companies. Call yours pretending to have a problem or a question. See what happens. An example is large banks. Have you ever needed to address an issue? The call starts out with an hour or more on hold. If you are lucky

enough not to be dropped and have to start again as you are transferred multiple times, you may eventually talk to someone who can help – it seems almost no one can make simple decisions or provide answers to mildly complex questions. But banks are not alone in this treatment. Making customers wait while listening to poor music and messages that tell you how concerned the company is for your well-being as you wait, and waiting is just maddening! If the bank cared, they would hire more people and not make people wait for long periods so the bank can save money. And when some bank finally figures out that they can use this issue to take customers from their competition and increase their market share, they will be taking a big first step into the future.

Then consider internationally-based call centers – which everyone loves to hate, but companies continue to use. Few can understand what is said and most interactions result in some additional problem which must be addressed later. The list goes on, but it can be turned into an advantage if it is redesigned by people who use it, not IT. This type of redesign is where the User Experience Architect comes into the transformation – which includes process, organization, technology, user experience, and strategy rethinking.

The fact is that Hyperautomation is delivering both automation technology and a thousand other technologies that will change all our lives. That provides opportunity to the creative and those willing to invest in the people and technology they will need to prosper in the future. It also offers a new approach to customer interaction that is more interactive and less frustrating.

But how will new automation or other technology be used? What expectations will change? For example, on the tech side, the move to no code application definition will replace long development times and reduce cost, making things that are prohibitive today available. On the "make our lives better" side, advances in holographic technologies and virtual reality are at the front end of changing everything we do. If the Tesla new venture to surround the planet with communications satellites does what is promised, the whole approach to the internet and other communications will evolve – changing everything we now have in place. And the list of newer, maturing technologies is long and interesting. Then add the list of Advanced Technologies in retail and other places and the foundation starts to look incredible.

But part of the Digital and Business Transformation needed to move into the future is a willingness to deal with legacy infrastructure and applications. While they can be accessed and blended with other technology using BPMS, they are still inefficient, difficult to change, and act as an anchor holding you back. While their replacement with new technology-generated applications will take time and cost a fair amount, it should be started and the legacy applications which generally hold companies back, be replaced over time. This is the missing link in many Digital Transformation efforts, where improvement is confused with fundamental rethinking – transformation.

What Can We Expect This Year?

According to the "Inc." online journal and "Gartner", in 2021 we can expect:

- A continued expansion of remote working and videoconferencing.
- Contactless delivery and shipping remain as the new normal.
- Telehealth and telemedicine will flourish.
- Online education and e-learning is growing and an essential part of the educational system.
- Increased development of 5G infrastructure, new applications, and utilities.
- AI, robotics, Internet of Things (IoT), and all forms of automation will grow rapidly as Virtual Reality (VR) and Augmented Reality (AR) technology usage rises.
- Ongoing autonomous driving innovation will become more accepted as the technologies and AI applications that run the sensors continue to improve.
- Finally, a scrambling from the more forward-looking companies to rebuild change capabilities and to leverage Hyperautomation to gain market share.

In addition, our research indicates that:

- Disruption will become normal and companies that control their ability to respond will have an advantage.
- Business paradigms, defining the vision of the company, are changing and segmenting businesses in an industry by their future operations and market goals.
- New business and operating models are changing rapidly. Hyperautomation and emerging technologies are changing what we do, when we do it, how we do it, and why we do it. This evolution in how businesses operate is redefining what can be done and its impact on the company.

Essential Aspects of the Changes Between 2021 and 2022

The opportunities are there, and they impact every aspect of our companies. Turn loose really creative people and let them experiment and innovate. The potential for new products, services, and customer experiences will combine in new ways to leverage the emerging technology – with staggering capabilities. But are you ready? To take advantage of the new technologies, the right people in the company must be aware of the new capabilities and they must understand what they really do and their potential. Then they can ideate and can transform the business constantly as new capabilities allow. But to do this, business and technology managers and staff will need training in how to transform vision and strategy, target operating models, new adaptive organization structures and processes, to put their ideas into

practice. In many ways, training and human capability building is the most important part of this move forward. Creating these human capabilities is the focus of the company we manage, "**MyCareerTransformation.com**" and the professional services and courses we offer.

Knowing how to figure out what to do and having the knowledge to succeed in doing it are critical needs. So is understanding how to operationalize, build, and deliver what you have innovated. But building the right capabilities and services and producing relevant products that can be purchased through comfortable interactions is where everything that has been done will be proven right or wrong.

Much of the foundation that is enabling the Hyperautomation era is available and where technology is going to take any company depends on vision and creativity. But it must be remembered that we are in a new era of change – one where the old must give way to the new. Here technology modernization is a goal of Digital Transformation, but it is not a static target as it was in the past. This goal today means having a formal target technical and capability architecture in IT that is aligned to strategy and Business Transformation and able to flex quickly as Hyperautomation and new technologies become available. This interdependent relationship ties all parts of the business together and relies on a close collaborative relationship between IT and business operations.

The Hyperautomation platform capabilities in application development and in supporting business change not only allow companies to innovate, but to move fast enough to play "leap frog" with one another on offerings, and customer interaction will be something to watch.

Making the Competition Irrelevant

Hyper Transformation takes this a step further. Rather than stealing customers, an organization will completely redefine the market creating new demand and making the competition irrelevant.

An example of this leap frog adoption of someone else's innovation proves this point. A few years ago, if you had an automobile accident you had to call your agent, who called a field rep, who then checked out the accident report, called the repair shop and submitted an estimate to the regional office. After a few days, you finally got a follow-up call with instructions on how to file a claim. Today, you take a picture with your cell phone and text or email it to the insurance company who then deals directly with the repair facility. As soon as one insurance company had this, everyone had to jump on the wagon and this simpler and better customer experience capability became ubiquitous. Competitors were forced to adopt this innovation or become irrelevant.

Optionalism is Over

Was moving to integrate this capability optional? No. It defined a new level of differentiation that others had to quickly replicate or become obsolete. And this will happen again and again in the future. The important point is not the technology or even the innovation. It is the ability to adopt and very quickly adapt, turning out a solution that is customized to your company and hopefully contains additional creative innovation to differentiate your offering. The ability to do that is what will make a difference. And not just once. This level of innovation raises the bar and redefines differentiation. It will continue to happen faster and faster. The human capabilities to do this are just now being defined, and they go beyond the traditional term of "innovation." But as with most actions in Hyper Transformation, innovation is a team sport that requires the blending of multiple opinions and viewpoints.

Advances that exceed the wonder of the once noted are happening every day. Almost anything you can reasonably think of is either available, becoming available or in research – along with technology we cannot even dream of. The fact is that the speed of change just took a significant leap. Are you ready to deal with this level of change and reimagine everything? Is your company really collaborative or are many organization barriers still in place? Are people really free to present ideas – even somewhat radical ideas? Or are communication barriers in place that discourage real dialogue and openness?

Although any type of transformation will take several years to really accomplish, it is unlikely that the first or second future or end state business model will ever be delivered. The reason is not related to failure but rather to the success of building in flexibility into the transformation process. With the constant introduction of new automation capabilities and Advanced Technology capabilities, it would not be wise to freeze out their use simply because they happen after the transformation has started. This means that the vision, strategy, and redesign are always subject to change as something that will deliver a better outcome becomes available. This is a very different reality than in the past when everything was frozen as a change was being built. But to succeed in this constantly changing environment, new approaches that allow for rapid redesign and both business and digital support construction that are customizable to the company's environment and culture are needed. These needs are the reason behind the approaches throughout this book – incremental function level development and a methodology that is easily customizable by simply deleting the parts you don't need for a given project or transformation.

But What Does This All Mean to Business Transformation?

The first thing this means to any form of transformation is that companies will need to rethink what they do and how they do it. For some, this may be a profound undertaking and may be resisted. For others, this is an opportunity to expand their thinking and to evolve as professionals. That is the true objective – transformation. The automation and other technology are just the enablers that make it all possible.

This is the foundation for a new vision of the future built around current and evolving automation and Advanced Technologies. For some, this will require a significant adjustment and that will be related to how the company responds to the business and technology evolution that is happening.

It will also be helpful to create a new research (capability) team that will keep track of both the technology changes that are maturing, as well as emerging digital capabilities that are coming online. Their role is to track both Hyperautomation and Advanced Technology change. These technology researchers will be a critical part of any Business Transformation as they are the advisors on what technology is possible and how it can be used in your organization. These people will work with the innovators who are both visionary and highly creative. They will have the most fun of anyone in any company because they get to consider every crazy and wild idea and kick it around in their groups.

What will not work today may work tomorrow and it may change everything. Just look at Uber and the many companies that started in someone's apartment, basement, or garage. In Uber's case, it totally changed taxi and delivery services. At some point it was a crazy idea that leveraged technology to build a new idea. But now Uber will need to adjust like everyone else when autonomous automobiles and trucks are perfected in the next several years. Like most companies, it will need to reinvent itself – probably around new Advanced Technology or some form of Hyperautomation.

Companies need to define a strategic target, not a destination. Why, because it will never be reached – everything will keep changing and any target will shift and evolve. The projects in the transformation evolution will need to change as the transformation goals, business designs, and Digital Transformation capabilities change to align with each strategic shift – making the solutions delivered by transformation projects temporary.

From an operating standpoint, the use of Hyperautomation will have a profound impact on what is done and how it is done. iBPM tools will help you get control over your operation and its rules, while eliminating redundancy and complexity. It will also generate applications and serve as a type of backbone that all other Hyperautomation platform applications can tie to.

RPA applications will automate repetitive tasks, and simple to complex AI will initiate scenario-based automated responses. All may leverage Natural Language Processing, Cognitive Computing, Big Data, and more. Collectively, the use of these application platforms will help streamline operations and reduce staff and cost. However, this benefit will be small compared to that which will be gained from Hyper Transformation.

Customers

This type of constant digital disruption in our companies, as Hyperautomation delivers new wonders, will require a new way to look at business and technology evolution – this is a continuous rethinking of the company. Here, transformation becomes continuous as new ways to look at business operations and customers becomes a constant need.

As Business Transformation becomes continuous, it will need to be looked at differently. It is no longer a one-time effort, and it will no longer be used on components of business operations. Because different business units are almost all interrelated, the operations will need to be considered at a broader level - groups of related business units that perform discrete business actions that join to form business capabilities. These will fit together like pieces in a puzzle. Because the connections of each piece of the operation to all others are discrete, the evolution can affect any capability with an easily identifiable ripple upstream for new needed data or downstream to what is being provided over those connections.

By focusing on capabilities, business redesign will now have a new flexibility as companies try to keep up with one another's innovations. The first things that will need to be put in place are:

- A new understanding of the implications of Hyperautomation – what is evolving, what is coming, and what is early stage on the horizon – and how that may be used.
- A group that understands how to go about transforming the business – a Business Transformation Center of Excellence.
- A group that keeps track of Advanced Technology and what the competition is doing with it.
- The adoption of a rapid change capability that allows the fabric of organizations to adapt to change and disruption.
- Reskilling everyone who will be involved with transformation – adjusting to the new transformation approaches and techniques.
- Innovation encouragement – sharing what is being learned about Advanced Technologies.

The Mythical New Normal

There will never again, at least not in the foreseeable future, be a new normal. Why? Once COVID-19 has run its course, the old "normal" will be gone. We will not be able to go back – even if we want to. So, the new normal will be what business managers decide it will be. The new normal in society will evolve more as the Pandemic is eliminated.

The changes have become part of a new quasi technical way of life. But now, we have to add Hyperautomation and technology innovation. It seems that if you can envision some technology or application, someone is building it. And the changes are not small. If Elon Musk succeeds in delivering a new approach to communication and obsoletes the way the internet operates today, the world will change. No one knows were AI, robotics, and Cognitive Computing will take us. What will happen when holographic technologies are mixed with virtual reality? We have seen Advanced Technologies slowly being introduced everywhere – including retail, where you can be scanned at home to get a perfect fit on clothing, or in healthcare with holographic imaging and robotic surgeons.

The fact is that new ideas and new technology are being released in a constant stream of new products and services. In fact, we are now seeing a blending of product and services that will define a new category of innovations and customer solutions that are only now being developed. And as soon as a new technology is released, someone starts to use it to build other innovative technology. That is why the most important part of transformation today is building for very rapid change – business, automation, new technologies, and innovation from customers and the competition. We believe that any company that can constantly monitor the tech world, feed information to innovators who will look at beating the competition, and then build and deploy the changes, will have a competitive advantage. But this requires a change in mindset from the past where the focus was on saving small amounts of money – hoping it would add up to something big.

If we want to declare a new normal, we believe it will be this ability to change quickly – recognizing that we now live in a very fluid society and market.

Measuring Success

So, how can any company succeed?

History with the Fortune 500 companies gives significant insight. Of the Fortune 500 companies in 1955, only 54 were still in business in 2020.

Past success does not guarantee future success. We know of many companies that did not adapt and lost. But adapting alone is not really enough – it just makes you a follower, not a leader. Innovation and operational excellence make companies stand out. However, success cannot be determined by temporary gains or by opinion.

Success can only be achieved when what is done can be measured against formally defined and agreed upon targets. But before you can begin to measure the success of any Business Transformation program – especially one that is designed to support continuous Hyperautomation-driven Business Transformation, you must put the foundation for the program in place. These foundation activities include the following (Note: Only the major foundation activities are listed):

- Adopt a policy of Continuous Business Transformation (technology and business operations).
- Modify the strategic vision for the company to include preparing for and changing, based on appropriate Advanced Technologies.
- Define a future-state operating model and operating direction for the company.
- Determine the timeline for evolving to the future-state operating vision.
- Determine the first version of an evolution budget over the strategy's timeline.
- Define current and future business and automation capabilities at each milestone in the evolution plan – and what benefit delivering each capability will bring – you can now measure incremental success and final delivery of success.
- Design the business operating model, with IT support, at each milestone in the evolution and build the changes – check against Advanced Technology to determine the viability and appropriateness of the design – or improve, as needed, using new technology capabilities.
- Define the Digital Transformation and align an evolution plan to the Hyperautomation-based Business Transformation evolution plan.
- Determine the overall approach to the evolution of the company to the new business operating model – how many stages or phases, the scope of each phase, what capabilities will be delivered in each, the costs, and the target benefits.
- Now optimize – the workflows will have been modeled, but not optimized, and application support will now need to align to the business operation and hitting what are believed to be optimal goals.

With the foundation for measuring success in place, each business function phase's new delivered capabilities and operating model can be tested and evolved until it does deliver expectations. In this iterative approach, the business model will be run through a simulation tool (many of the Hyperautomation platforms have imbedded simulation modelers) and evolved. The resulting business model will be used by the Hyperautomation platform to generate or nearly generate no code vs. low code platforms. These full solution business functions will then be simulated in a constantly iterating live environment, called a model office, and the results checked to assure that targets are met.

In this way, assuming appropriate testing time has been allowed, the delivered solution components will be approved before they are delivered. Each transformation business function-related phase will be successful and, following the waterfall-based process hierarchy set of models, the integration of each phase's delivered component will be known and built as part of the phase allowing each to fit together like pieces in a puzzle. This allows the solution to be built and delivered in components that are pre-approved and easily linked to allow the capabilities and the business operations to increase in functionality as the phases are released.

Then Comes Heart and Commitment

The simple truth is that you should never expect to deliver any envisioned future-state model. As noted, the reason is that the technology capabilities will change long before any multi-year change is deployed. That is why it is necessary to review the direction, design, and plan every six months to see if new technology will provide new opportunities for innovations and, if appropriate, adjust the end-state vision, strategy, goals, and transformation designs and projects. This is a vastly different approach than we dealt with in the past where the operation was "frozen" while the change was built and deployed.

If you don't have this flexibility, we recommend that you build it – NOW. Every aspect of a business will flex during transformations. Poorly managed changes will be highly disruptive. Transformation that is approached as in the past will continue to have a high failure rate. New flexibility supported by new methods, approaches, and techniques are needed. For most companies, this will require a rethinking of transformation based on an approach to evolution that allows a constantly shifting end target as Hyperautomation and emerging technologies support additional fundamental change to the company, its operation, and its IT support.

Building this capability is a foundation element to future success. New times, new technology, and new concepts require new approaches and innovative ways to deal with foreseeable issues.

Innovation will be critical. But some things will work and be successful and some will not. Innovation requires experimentation and controlled risk. For many companies that are risk averse, this will require a new way to look at the business operation. It requires a culture where people can try something new and fail – learning from the failures. This is a place where collaboration becomes important, so mistakes are not repeated.

The key here is the executive ability to determine what will potentially provide a high return and then control the evaluation process – while checking marketability and potential development and marketing costs.

Of course, risk can and must be controlled, and only experiments with a high probability of success will be funded. But this will allow innovation and innovation in the future will be a key differentiator among competitors as companies work to improve their market position.

But, here again, the final measurement is hitting financial goals and creating a sustainable product and operation – one that will change as new technologies allow.

Chapter 10: Hyperautomation Tools That Are Proven to Succeed

Hyperautomation

Traditionally, Hyperautomation is the aggregated use of two or more modern (advanced) and emerging automation technologies. The term was initially defined by Gartner and includes a wide range of advanced tools. These automation tools include Business Process Automation (BPMS), Artificial Intelligence (AI), Robotic Process Automation (RPA), Machine Learning (ML), Decision Support, and Intelligent Business Process Management Software (iBPMS). The goal is to increase automation to augment the jobs people perform – which includes monitoring, discovering, measuring, improving, and helping company operations evolve.

Key tenets of Hyperautomation include the use of combinations of these tools in building process or business function solutions, increasing the use of AI in decision making, and increasing the speed of automated change while reducing cost. This assumes that the tools that are selected have a high degree of interoperability – "out of the box." This is a critical point and represents a lesson learned in the past as IT struggled to make different automation products work with one another.

Some of the benefits of the Hyperautomation approach include:

- A high degree of process automation
- Performance monitoring and analytics
- Improved operational reporting
- Increased employee work capacity
- Lower error rate
- Rapid processing of repetitive tasks
- Improved compliance
- Improved consistency in work and outcomes
- Increased collaboration
- Improved and more consistent decision making

The Critical Nature of Training and Experience

An underlying assumption in Hyperautomation is well-trained business and automation technology managers and staff. Because the concepts, approaches, and ways of building applications in Hyperautomation-related tools is vastly different than in traditional computer languages, people involved in these projects must develop a new set of baseline concepts and new skills to be competent. In addition, business and IT managers and staff will need to learn new approaches to modeling, rules definition, application definition, and more. This underlying tenet is very often a significant problem as vendors often offer a week of training to help organizations get started and then have little real contact as company technical teams struggle to move beyond simple use cases. In addition, the concept of requirements definition is also

different as it is built into models with sequence and interaction defining the flow of activity and supporting "notes" being used to provide details.

To date, several tools have been classified as Hyperautomation tools. All are "modern" tools, and all work off of rules and algorithms that sift through data and calculations looking for an answer by applying rules. While this is a simplistic view, it is basically true.

This chapter of the book will deal with categories of tools and not any tool from a specific vendor. We address the types of things that different tool types can be used for – their capabilities. Our goal here is to provide the reader with a basic understanding of the tool type's strengths.

While these tools are beneficial alone, their capabilities become even more beneficial when mixed with other Hyperautomation tools and emerging technologies. The big difference is, when multiple Hyperautomation tools and Advanced Technology are used together, that their combined range of capabilities becomes the foundation for innovation.

The main tool categories are as follows:

- Intelligent Business Process Management Suite (iBPMS)
- Decision Support (DS)
- Robotic Process Automation (RPA)
- Natural Language Processing (NLP)
- Machine Learning (ML)
- Cognitive Computing (CC)
- Intelligent Automation (IA)
- Artificial Intelligence (AI)
- Conversational Artificial Intelligence (CAI)

The following discussion presents some of the main capabilities of these tool categories. Individual tools may have differing capabilities and some vendor's products capabilities will be stronger than others. However, generally speaking, the capabilities and benefits listed for these tool categories represent their major advantages of the category.

Because the product categories, lists of capabilities, and lists of benefits are evolving rapidly, the identified capabilities and benefits are a representative sampling. These lists are not all inclusive but rather sound examples as of Spring 2021. However, it is not anticipated that the listed examples will become less important or drop off the lists. It is anticipated that new capabilities and benefits will be added.

The following table summarizes the main capabilities of these Hyperautomation tools.

Type of Tool	Main Capabilities
Intelligent Business Process Management Suite	• Build operating and decision intelligence into the decisions used in work. • Drive the creation of better internal user and customer interaction experience. • Promote operations streamlining and improved ability to change quickly and effectively. • Improve performance management with reduced error.
Decision Support	• Rule-based decision making. • Situation-based probability analysis with decision making and outcome recommendation. • Supports ad hoc inquiry. • Support dynamic problems that are rapidly changing and cannot be anticipated.
Robotic Process Automation	• Automate repetitive tasks. • Rapid creation of BoTs (small special purpose RPA systems). • Improve execution consistency. • Improved ability to monitor and provide operational analytics. • Rules-based exception handling.
Natural Language Processing	• Computer interpretation of vocal statements. • Interact with a computer through voice statements. • When coupled with AI, Machine Learning, and Cognitive Computing, computers can interact vocally in conversations with people.

Machine Learning	An early form of Artificial Intelligence that provides the ability of the applications to learn from trial and error as it accesses large amounts of data. Allows computer (programs) to learn from experiences and then save the experiences for future use – creating an evolving set of knowledge.
	    • Algorithm-based ability to improve the program's performance based on an increasing number of experiences.
	    • Able to provide improved predictive analytics and results analysis.

Cognitive Computing	The creation of self-learning applications that use pattern recognition, data analytics, and Natural Language Processing (NLP) to create computing applications that solve complicated problems autonomously or with minimal human oversight/involvement.
	    • Adaptability.
	    • Highly interactive.
	    • Support for contextual discovery, analysis, and decision making.
	    • Flexible depending on the data it can access.
	    • Autonomous – or mostly autonomous.
	Note: More than most Hyperautomation tools Cognitive Computing capability use requires meticulous and intense training.

Intelligent Automation	• Intelligent automation combines artificial intelligence (AI), machine learning, and process automation to create business activities, processes, and workflows that are able to autonomously think, learn, and adapt. • Research – looking through IoT and local sources. • Inference – based on algorithms, and supported by AI and cognitive computing, look for patterns in the data and activity to infer a result or recommend an action. • Increased precision in operations, security, research, analytics. • Control process execution and work shifting. • Improved compliance-based action optimization. • Ability to independently improve efficiency and reduce cost and error. • Integrates the capabilities of Hyperautomation tools such as iBPMS, Machine Learning, and performance analytics to solve problems and improve the business operation

Type of Tool	Main Benefit
Artificial Intelligence	• Support advanced machine learning to augment conversations and human interaction – give a task and it will do the research to learn and perform the work. • Support direct interaction between a person and a computer. • Independently analyze and make decisions. • Object identification. • Probability-based predictions – analytics.
Conversational Artificial Intelligence	• A CAI allows computers to recognize human language, understand what is being said, identify the right response, and respond in a way that mimics human conversation. • This capability is based on the combination of three Hyperautomation technologies - Artificial Intelligence (AI) (chatbots or voice assistants, which users can talk to), machine learning, and natural language processing to imitate voice interaction.

The following table summarizes the major benefits of these Hyperautomation tools.

Type of Tool	Main Benefit
Intelligent Business Process Management Suite	• Improved integration with other automation tools. • Advanced analytics tied to process. • Low code application generation support. • Support for complex event processing. • Incorporated tools to deal with cloud-based data. • Support for continuous process improvement. • Advanced process analytics.
Decision Support	• Improves accuracy. • Standardized operational decision making for consistency. • Agreed upon decision rules and evaluation. • Reduced decision time for efficiency and to provide a competitive advantage. • Increased understanding of decisions as the rules and interpretive approaches will have been agreed to by affected managers.
Robotic Process Automation	• Have the computer perform repetitive tasks. • BoTs work 24x7 365 days a year. • Consistency – every time a bot executes, it does the same thing, the same way, reducing error and cost. • Improved ability to monitor and provide operational analytics. • Fewer people – cost reduction. • Ensure that processes conform with compliance requirements. Note: A key issue here is that business rules must be known and are the foundation of the approach – unfortunately, this is seldom true.
Natural Language Processing	• Enable natural conversations between humans and computers. • A critical element in the creation of RPA chat bots. • Reduced interaction time when dealing with computers. • Interaction flexibility – almost any time, from anywhere. • Improved processing – less confusion due to unhelpful automated instructions. • Inquiry and reporting drill down and other analytical ad hoc questioning.
Machine Learning	• Real time business decision assistance. • Predict customer reaction. • Predict problems and preventative action. • Enhanced security. • Improved analytics – why is X happening.

	• Improve ability to enhance customer experience. • Improved process execution and error detection with automated resolution. • Improved process management and resource planning. • Predict market and customer evolution. • Efficient data management and use. • Improved capability to deal with complexity.
Cognitive Computing	• Algorithms that learn and adapt based on their learning. • Superior ability to address complex issues and learning needs. • Improved operational efficiency through simulation and event/historical learning – access to IoT. • Improved ability to predict based on learning from past customer interactions. • Improved data analysis and learning through ad hoc questions during the analysis. • Helps improve processes by running "what if" questions in probability analysis. • Ability to reason and learn from past operations.
Intelligent Automation	• Work consistency and accuracy. • Improve productivity. • Improved performance measurement and analytics. • Cost reduction. • Increased operational change flexibility. • Potential for improved customer experience – improved feedback. • Improved IT support and collaboration between IT and company managers. • Improved processing speed as the computer takes over previous manual work. • Improved system interoperability.
Artificial Intelligence	• Increases the use of autonomous automation in complex decision-based activity. • Once operational, AI becomes responsible for decisions, work shifting, quality, and performance in a process. • Supports enhanced activity and operational efficiency and quality. • Provide real time analytics. • Manage process execution and workflow – automatically intervening to improve performance and eliminate error.
Conversational Artificial Intelligence	• Recognizes spoken words and understands their meaning. • Allows human computer voice discussion. • Allows the computer to recognize the meaning of sentences and to understand and separate questions from statements. • Provides an easy way for people to interact with automated tools.

As is obvious from the list of capabilities and the list of benefits, these automation technologies are pushing all the automation boundaries we have known. However, using these categories of automation tools and mixing them to expand capabilities is tricky and any advanced use of these tools requires highly experienced and very competent designers, developers, and business managers and staff. Training is the key in building groups who can effectively take advantage of these capabilities – especially when it comes to Operations Transformation. As these tools and Advanced Technology are melded into new capabilities, Business Transformation will change again and go from Continuous Business Transformation to Hyper Transformation as significant operational change keeps pace with not only these tools but the tools that will replace them as they evolve.

The old approach of over-analysis, believing that because it took so long to build a solution, that the time had to be spent in the analysis and design phases to get things right before the solution was built. That was a wrong approach in the past, and it is even a worse approach now. Business is fluid and any effort that takes a year or longer will be out of date before it is finished and old tech by the time it is tested and released. Reversing this situation is the greatest advantage of the Hyperautomation movement. While it takes time to learn how to use these application technologies effectively, once set up, the ability to evolve is just a natural part of the automation tools. Speed is critical and the only way to really obtain it is through the Business and Digital Transformation offered by a move to Hyperautomation and a focus on technology flexibility.

Advanced Technologies Working with Hyperautomation – Truly World Changing

The adoption of a Hyperautomation approach and the automation technologies discussed in this chapter can move companies from a legacy operation that is restrictive, at best. However, the blending of these automation capabilities with Advanced Technologies, such as emerging communications advances, holographic and Virtual Reality advances, 3D printing advances, and autonomous driving vehicles and much more, opens the doors to a time of hyper innovation.

This innovation will in turn drive a need to continuously look at the automation and other technologies that are evolving and emerging and then determining how your business needs to respond. In almost all cases, some response will be needed to remain competitive. In other cases, a rethinking of the business, its products or services, and its operations will be needed. This need will become increasingly critical as the pace of change continues to accelerate – as will the need to evolve training programs and the way key managers and staff are viewed – as assets, not as replaceable parts. The resourceful company of the future will be staffed by highly trained and highly competent people, along with robots and autonomous automation.

Chapter 11: Reskilling Knowledge Workers: How Far Do You Plan to Get with Yesterday's Skills? You Are Betting Your Job and Your Career!

The Truth is Out There

It is no secret that the explosion in automation technology in the past 20 years has changed the face of business at all levels – local, regional, and international. The innovative use of the modern technologies has allowed innovative companies to dominate markets, and even to create new ones – forcing many old companies into decline or extinction. It is also no secret that we haven't seen anything yet as automation technologies capabilities continue to expand at an unprecedented rate – changing or replacing many of yesterday's jobs.

The new market and associated economies are being built on these new automation capabilities, and business operations are trying hard to keep up with the changes that can now be made to reduce cost, error, and inconsistency in the work and workflows. This is affecting all parts of the business and creating a demand for new knowledge and new skills that the majority of the current staff doesn't have. This is especially true in Business Transformation where innovation that has been needed is now taking place. This automation-based transformation often results in a need for fewer staff that have the right skills and knowledge.

An example of this reskilling of knowledge workers can be seen in strategic visioning and in operations redesign – both of which drive different automation capability needs. Given the high failure rate of Business and Digital Transformation, it is clear that current skills have not been able to provide the innovation or evolution that is needed. From a strategic standpoint, many, if not most companies seem not to be as visionary and creative in looking both to new and Advanced Technology and how they can be applied to deliver fundamental market disrupting change.

Over the years, we have found that a key factor in success is ensuring that the design and implementation team have the right skills and experience. Too often we are asked to "rescue" a transformation project that has gone off the rails, and one of the key factors is the team's ability – both the business and technology members. While these people are competent in their jobs, they often do not have an understanding of transformation or what is needed to innovate and transform. The fact is that if the skills of the past were up to the challenge, there would not be a high failure rate for these initiatives.

While project management is still an issue in current projects, including transformation, the real test of both Business and Digital Transformation skills is about to arrive. It is being carried on the back of the Hyperautomation that is delivering ever greater and faster capabilities. And, that has only just barely started with BPMS, RPA, Cognitive Computing, voice interaction and much more. The skills to effectively leverage these technologies will be vastly different than those of the past – in fact, legacy technology skills may prove to be a hindrance. And even more important, the competencies that will allow innovation based on these new technologies are even rarer and must still be built.

The Dilemma

Companies are faced with a real-world dilemma. They want to keep costs low and are still in survival mode in the post COVID-19 world, and many resist change and new technology strategies. While this is understandable given the Pandemic, it is also a potential road to disaster. In addition, many business people simply don't trust the automation capabilities of their companies based on past experience and shy away from innovative technology use. So, gaining the momentum and backing needed for the radical changes that will be coming is difficult. This causes a serious problem. The sooner the company can begin building the knowledge and skills to transform, the better off they will be. But many will wait until their competition starts to seriously erode their market share before they realize they have no choice but to build/buy the skills they need to transform – and that will be too late for some.

Survival

If companies want to stay in business and fend off outside innovators who leverage not only new but Advanced Technology, they must come up with totally new technology-based innovations that use new business models supported by application systems requiring fewer staff to run … while delivering a better customer interaction and overall experience.

This process of innovation based on technology capabilities is gaining speed. It will affect every industry and segment of our lives. Just look at Uber, Amazon, Tesla, and now major auto manufacturers who are rushing to autonomous electric technology. Soon we won't need drivers for trucks, cabs, or cars. What's next? Anything that can be imagined. How will that change the world? It depends, but it will change it, and innovative companies will take advantage of it while those who doggedly cling to the past ways and skills will go the way of the dinosaurs.

But as the business world goes through the inevitable upheaval that will be associated with these changes, the question all managers must ask themselves is – "*Does my team have the skills needed to be successful in this new world?*" For most, the honest answer is "*no*." Some groups have little to no real Business Transformation skills – colleges and professional degrees have failed some. Others have old skills that have no value. Still others have skills for jobs that will become obsolete.

These Changes Have Begun – They Are Not Just in the Future

And the time for these changes has begun. The question is: "W*hat skills will you need?*" "*How do you need to reskill your teams?*" These are tough questions that require some research and creative thinking. For example, "*Should everyone have application development skills using the new automation tools?*" "*Will this type of support distribution be the way of your future?*" In

the short term that is not likely, but what about the two-year time horizon? Today "low code" application generation/definition tools are common, but still somewhat hard to use. But that is a temporary situation as application solutions evolve to "no code" solutions and the need for the traditional programmer will eventually die out – especially once legacy applications have been replaced. And they will be replaced when the BPMS vendors realize the opportunity of reading the old applications and translating them into modern applications within their tool's environment. But with these tools only a few people will be needed for setup. And when the legacy issue is cleaned up, fewer people yet will be needed. It is similar on the business operation side.

On the operations side, technical capability evolution will have as great an impact. New technology capabilities will radically change the way business is done and the way processes work, and the way information flows. This means that today's processes will be largely automated once the rules issues are resolved. But fewer people will be needed to do the daily work and manual work will be concentrated on inference-related jobs and on ongoing Business Transformation as the company responds to marketplace and competitive innovation.

The Need to Upgrade the Skills of Your Best People

But while the make-up of any group will change, there will be a need for people who can leverage the technologies to rethink the business operation. This includes the way processes will interact with customers, and virtually every other aspect of the company's operation. These needs started to expand as companies looked at ways to improve their current operations. Not only will this need continue, but it will evolve as companies realize that they have no choice but to join the Hyperautomation community if they want to remain viable. That means a whole new set of strategy, Business and Digital Transformation design, planning, development, and implementation skills – companies will not be able to put up with high failure rates, high cost, inflexible operations, slow changes, and much more. Resolving these and many more issues will be critical and require people who understand the new and Advanced Technology capabilities and have the insight and creativity to innovate.

It is also important to understand that the skills of the past, the ones most people have, will not serve you well in the future. Not only are new skills needed, but it is often necessary to abandon the ones of the past. First of all, they have caused the problems we are dealing with in companies every day and secondly, they no longer apply – the way Business and Digital Transformation has been approached simply doesn't work very well. New approaches, skills, and techniques are needed as people adjust to the transformation needs of the future – that has started and is evolving today.

So, is the company ready? Do the people have the right skills? Are you ready? Will you fit into the company as it adjusts staff – with Hyperautomation far fewer people will be needed. Do

you have the skills needed to make you marketable and valuable to the company you are in or to other companies?

If reacting to COVID-19 was tough, it is a small sample of what is coming. In your COVID-19 response you may have moved workers to a distributed model with remote automation and home work space. Now think of what will happen as you need to respond to innovation after innovation in your competition. The skills that will be needed take several months and at times over a year to build. Consultants can be expensive and there is no guarantee they have the right skills. New hires will come from companies that have contributed to the 70% failure statistic. Consequently, waiting could be an issue.

Looking forward, people and organizations are recognizing that skills in:

- Technology - identifying how Advanced Technology (no coding) can be applied and integrated into the organization.
- Customer Experience - continuous innovation in how your organization interacts with customers to provide a seamless overall experience. As customer values and behaviors continue to shift, so will the business.
- Leading Change and Continuous Business Transformation - leading an ever-adapting organization in which the processes, rules, and enabling technology are constantly evolving. These leaders need to not only manage change, but lead it.

These are just a few example skills. What are you seeing in your company?

Chapter 12:   Next Steps – Getting Started on Your Journey to Hyperautomation and Hyper Transformation

Change Is a Challenge

As noted, the transition to a Hyperautomation-based business will be invasive, pervasive, and expensive. However, following the evolution approach that we have proposed, the cost can be spread over time in a controlled rebuilding of the business area or company. This chapter of the book is focused on making that move.

Obtaining Approval

The obvious place to start is for a sponsor to gain approval for the transformation. This is often a senior management group or board-level decision. For this reason, these projects are approved at the top level in companies. However, that part of the transformation process will happen in senior officer meetings with specialized review, study, and analysis reports. These activities will happen, but they will be focused on determining if the transformation should take place and how it should be funded.

Once the approval is formalized, there will be a set of objectives or targets and expectations for operational improvement and ROI. This may include the authorization to move to Hyperautomation and Advanced Technologies. If it doesn't, the Transformation authorization should be discussed and amended to include Hyperautomation technology as a strategic direction for the company.

When Do We Start?

The real first step in preparing for transformation is strategy and involves a recognition that the business and societal aspects of each country is about to change as automation technologies evolve and both useful and entertainment technologies are released and improved. This means that any approach must be flexible and able to adjust quickly, making the goals moving targets. This is an adjustment that is required to succeed in the fast-paced Hyperautomation world we are entering.

While we recognize that investment will be necessary for some companies, we view this change as a required investment in the future of the company. This is the technology that all business will be based on for the foreseeable future, and it is the only current technology that delivers the capabilities in flexibility, speed, and price needed for companies to compete on a level playing field. Also, the future of any company is becoming technology-based. If the company cannot move to new Hyperautomation technology, it will eventually become unable to compete.

Obtaining approval for the move to Hyperautomation tools may be the first steps, but it is necessary.

The Hyperautomation/Advanced Technology-based innovation trend has started and is picking up speed. The key component in this trend is the mobile phone which serves as a platform for using very advanced applications. Leaders have leveraged this mobile phone technology to set the stage for the expanded use of as mobile computers, communication devices, measuring hardware, gaming platforms, television and movies, and soon holographic and virtual reality devices. As useful as this is today, it is nothing compared to where it will be in a couple of years and then again beyond that.

So, will your company just stay the course of today or will it adapt to the new reality of Hyperautomation-based evolution? Answering this question may be the most important strategic question senior leaders will have had to address in the past 10 to 20 years.

You May Already be Behind

Some companies have started down the Hyper Transformation path already. There will always be leaders – early adopters. And there will be companies late to the party. Both positions have risks and rewards, but we believe that the game is changing due to the fact that sooner or later every viable company will need to transform based on Hyperautomation, Advanced Technology, and the need to be cost-effective.

There is no right or wrong way to move forward – as long as the company keeps moving forward. The issue with Hyperautomation is that eventually it will be a "no choice" situation. The early adopters have moved, and they have Hyperautomation tools. But most of the early adopters largely don't realize what they have – thinking they just help them generate applications. The real power can only be found by thinking outside of IT and at a much higher strategic level. Then as capabilities are realized, the real opportunities become clear, and you realize that this is game-changing technology that is already changing everything we know. But this understanding will take some time to mature before it is widely accepted. So now is the time to start. Now is the opportunity to use this technology to clean up your legacy issue and to leapfrog your competition. In times like this, it is clear that someone else is thinking about the same opportunities you are. Someone is looking at what we talk about in this book. Someone is also acting on these and any other concepts anyone can think of. And someone will become a dominant player in every market. The question is who that will be? We believe that company will leverage Hyperautomation and Hyper Transformation to reach that position. But for now, the opportunity is open.

However, these Transformation efforts will require at least 2 or 3 years, so a minimally disruptive approach will be needed. That is also a long time to let your competition jump ahead of you – so using an approach with fast development and deployment cycles is important.

We would also like to point out that licensing an iBPM, RPA, or other tool and then trying to use it either separately from your legacy automation environment or even with it, is NOT really

getting involved in Hyperautomation. That is using these powerful tools like any other programming language – to solve a specific need. Then buying a different one in another business area to solve another specific need. The transformation must start with a vision and a plan – not just buying a tool. It is a commitment to a new approach and to really transforming your automation capability and your business operation. It is a commitment to a multi-year effort that will change the company and prepare it for the next 20 years and it is a commitment to a planned evolution, so it is affordable.

Of course, many companies have moved to adopt Hyperautomation tools for use in single projects or for a class of projects. That is how this started. But these tools are so much more useful, and we urge those companies to re-evaluate their use of these tools and consider how they could be used to change the automation strategy of the whole organization.

Moving Forward – Hyper Transformation

The balance of this chapter is devoted to several templates and assessment tools to help you identify, assess, and determine your organization's ability to successfully achieve the goals of your transformation agenda. We have outlined a four-step process to help guide you forward:

Getting Started – provides the beginnings of specific actions that need to be considered in launching your transformation effort. Each of these considerations need to be evaluated and addressed as you build a transformation agenda that is appropriate for your organization.

Transformation Readiness Assessment – evaluates your organization's ability to successfully plan, design, and implement a transformation agenda tailored to the unique needs of the business vision and strategy.

Business Transformation Fail Point Causes – identifies common "fail points" that undermine a transformation's success. Seven categories of fail points are identified, each with specific causes and the rationale behind them.

Fail Point Self-Assessment – provides an opportunity to assess your organization's likelihood of determining fail point (places where a process often fails) and building corrective actions into the workflow.

Moving Forward

 The tables below list major actions that should be taken when starting to transform the company and taking advantage of both Hyperautomation and Advanced Technologies. These actions are provided from a business senior manager perspective. Technology activities will be included, but they will be focused on evolving the IT function to optimally support the business operation. This will represent an evolution of IT tools, architecture, infrastructure, and applications as new approaches and techniques are melded with and replace the old ones.

These tables are:

- Building the Transformation Foundation
- Building the Transformation Project Foundation
- Getting Started

The purpose of these tables is to provide a list of the main task groups needed to be properly considered to start your Hyperautomation-based Hyper Transformation project.

Building the Transformation Foundation

Starting your Hyperautomation-based Hyper Transformation journey begins with clearly understanding the company's vision for the future in detail. This cannot be nebulous or interpretive. It must be clear because it is the basis for the entire transformation – it tells everyone what the company is transforming to and why. It also is the foundation for defining the capabilities that are needed to define the operation and its automation support. The fact is that transformation is a journey with an evolving destination. It is not a one-time action with a long interim period until the next transformation is needed. This is a departure from traditional thinking based on the speed at which technology, markets, knowledge, and society are changing.

And the journey starts with the commitment to spend the effort to succeed now and in the future.

The following table starts that journey by looking at and acquiring Hyperautomation technologies. For those who already have some of these tools, you are ahead – maybe. That determination depends on an evaluation of how you feel about the products you have and the vendors. If the product works poorly or if it is not evolving, you should consider changing it out. The information for this and other related decisions should be a result of honestly addressing the actions and questions in the tables below.

Building the Transformation Foundation

Leveraging Hyperautomation

	Action	Notes
1.	Define a high-level conceptual future business model and the strategy to get to that model.	Turn the vision into a future-state full business operating design.
2.	Introduce the need to consider Hyperautomation-based business and IT transformation.	Introducing this evolution to senior management will follow a different path in each company.
3.	Create the internal study and investment proposal with benefits for presentation to executive management.	Formalize all the required company standard strategic action foundation information, provide a compelling reason to make this move with conservative cost/benefit estimates and present the business case internally to the board. If the concept is accepted, this will become the business case.
4.	Formally identify the transformation executive manager (Sponsor with overall responsibility), the team leaders, specialty skilled team members, and support staff. Form the transformation teams.	Assuming approval for the transformation and the acquisition of specific Hyperautomation tools, the team will be identified. A few different teams will be needed: • Vision and future-state operating and IT transformation design – high-level. • Executive oversight and financial tracking. • Vendor interface. • Rule's identification and definition. • Collaboration evolution direction team.
5.	Update Senior Management on Hyperautomation tool options and their capabilities and cost – and emerging technologies.	Provide a firm understanding of what technologies and application system development platforms are available, their capabilities, and strengths. This is the business case.
6.	Take the readiness assessment provided later in this chapter.	If the result is not an obvious yes or no, it may be worthwhile to bring in assistance and find out what really needs to be changed to improve your chances of success.
7.	Augment the "fail point" list and customize it to your company's business and IT operations project experiences and eliminate or mitigate them.	Define all applicable "fail points" that apply and be prepared to add activities to eliminate or mitigate them to the project plan. Also, build a quarterly review for the sponsor and executive management that review the status of each fail point to see if it is becoming a problem.
8.	Create a list of Hyperautomation tool capabilities that will be needed for broad use in the company.	Formalize and rank these capabilities / requirements along with financial stability, probable longevity of the vendor and ease of use.
9.	Select the possible Hyperautomation tools.	Identify and contact each possible vendor – given your requirements, review each tool in the

			vendor's platform. Gartner or Forester reports are good places to start your formal vendor review.
10.	Perform a brief Hyperautomation platform tool capability assessment.		List what each type of Hyperautomation tool can do and what tools it can be mixed with. Then obtain "detailed evaluation reports" from Gartner or Forrester on the Hyperautomation tools you are most interested in and develop an expertise on the capabilities your company needs and the best tools to provide those capabilities.
11.	Select the two or three top ranked tools from your review.		Begin formal product reviews and begin negotiations with the vendor/product that best meets your capability needs. If negotiations fail to provide an agreement your company is comfortable with, move to the second highest ranked vendor from your review.
12.	Formally identify the transformation executive manager (overall responsibility), the team leaders, specialty skilled team members, and support staff. Form the transformation teams.		A few different teams will be needed: • Vision and future-state operating and IT transformation design – high-level. • Executive oversight and financial tracking. • Vendor interface. • Rule's identification and definition. • Collaboration evolution direction team.
13.	Obtain the Hyperautomation products and install them.		Obtain the use licenses and set up use for the number of people on the transformation team. Set security and provide access to the number of people on the team.
14.	Implement the Hyperautomation technologies melding them into the company's IT environment.		Install the Hyperautomation tools and test them. Train company developers and assign them to small projects that will use these tools to gain experience.
15.	Train developers and business transformation team.		Work with the vendor to provide tool use training. Add transformation approach, methodology, BPM, and standards training. Build expert-level skills.
16.	Assign the transformation team to a small project to build experience.		The project is not important. A small one will do – a small complex one is better. This is a competency test, and it will hone skills.
17.	Determine the future vision for the company's operation, leveraging what has been discovered in your company's research on Hyperautomation and Advanced Technology.		Form a group of the most innovative managers and give them the task of defining a vision and direction with innovative ideas on operations, interacting with customers and automation capabilities – do not put boundaries on this brainstorming. Set an operating paradigm goal and challenge this team with determining how to reach that paradigm.
18.	Confirm the major benefits that will be provided by the Hyper Transformation.		Benefits will have been identified at the beginning of the business case's creation. Are they still anticipated? What new savings or capabilities are expected? What benefits are associated with each business function

		step/phase in the evolution to the new transformation solution. Obtain authorization to continue the project based on new benefit estimates.
19.	Identify major high-value interim evolution steps in the build to the new business model.	The business operation may have problems that are damaging profitability or customer interaction. Determine if small corrections will make a difference and if so, send "SWAT teams" to make the appropriate changes. These are "low hanging fruit" changes and may be taken care of in a continuous improvement program if given high priority.

Building the Transformation Project Foundation

Few traditional transformation projects and no Hyper Transformation projects can succeed unless a proper project foundation has been put in place. This foundation is, however, often skipped as the team scrambles to find what will be delivered and how they can get started as soon as possible. However, we urge you to take the time to do this and do it right. This foundation step can often be the difference between hitting targets or missing them as the wrong resources are traded out, activity that was forgotten is added, and misunderstood business operations or targets cause rework. Skipping this step has proven to be a mistake with often severe consequences – including building applications that do not properly support the real future-state business.

In addition to building this project foundation, it is important to periodically check it to see if ongoing changes in the solution from new Hyperautomation capabilities will have affected it.

The major components that need to be performed are listed in the table. However, these are a start and are not all that is needed in your Transformation Project Foundation. This list should be augmented with those items that your company's large project standards require and others that are needed for the team. Components should be added and wording adjusted based on the people that will be put in place and their experience level.

At this point, the company will have approved the transformation, selected, and installed the Hyperautomation tools they believe are needed, trained both business and technical staff in the use of the tools and in BPM, and the benefits will have been vetted. The underlayment for the foundation is in place. Using a construction analogy, the stone for the foundation has been put down and it is now time to pour the concrete for the floor.

Building the Transformation Project Foundation

	Building the Foundation for Success	
	Activity	**Note**
1.	Confirm the high-level conceptual future business model and the strategy to get to that model.	The vision for the future will change as more is learned about the capabilities of the Hyperautomation technologies, as competition innovates, or as customer interaction preferences change. The changes may require modification of goals and business/IT capabilities.
2.	Establish formal expectations.	Each deliverable and capability should be clearly defined and agreed to by all evaluating parties – along with the way success will be measured.
3.	Select the right team.	This is critical – if the team is made of people who are available, the transformation will fail. The redesign and rebuilding of the business and IT operations for the future is the most important activity a company can engage in. It requires the company's best and most flexible people.
4.	Obtain a formal Business Transformation Methodology.	Any large project should be guided by a formal methodology that is understood by all involved. This is especially true in transformations – there are simply too many moving parts to leave guidance up to the Project Lead. The methodology should blend waterfall concepts for context, Lean Six Sigma for performance tracking, Agile for automation, BPM for operational efficiency and an approach that focuses on evolution. The methodology should also contain activity directed to make certain the four dimensions of transformation are used to guide investigation, analysis, and redesign. It should include cooperative collaboration and leveraging the perspectives of the six architects of transformation. Given the probability of ongoing Hyperautomation platform capability releases during the project, the methodology should build in periodic automation tool reviews and if the new capabilities will change the business or technical designs, new estimates. This flexibility is needed to allow new tool capabilities to be used to improve the designs and the final transformation solution and keep up with the innovations of your competition.
5.	Cooperative collaboration.	Participation is not collaboration. Collaboration is a commitment to the members of the collaborative group and the project. Leave ego, past differences, dislikes, biases, inflexibility, and personal agendas at the meeting room door. Disagreement spawns needed debate, but heated argument is unproductive.
6.	Obtain formal team space with needed communication capabilities.	This is a team area with space for the entire team and a meeting area for debates and other noisy meetings. The space should have white boards and adequate convenient power outlets. The team should not be stationed at a single long table in a distant corner of the basement. Why? Because

		that tells everyone the transformation is not important. Today, given remote working conditions, this space should have communications capability that will allow people to show documents.
7.	Same computer capabilities.	Everyone should be on the same version of any PC operating system and software. All team members should have the same versions of all tools. Printers should be located in the team's work area.
8.	Security.	The appropriate automation securities and physical location access limitations should be put in place.
9.	Transformation approach.	Determine who will be involved and how each will be involved in the initial information discovery process – interviews, group meetings, reviews, evaluations – and obtain their commitment to timely action. Within scope, identify the major business functions and estimate the number of individual phases that will be performed in the transformation project's evolution.
10.	Project plan.	The plan should follow the methodology and use only the steps needed for the project – avoid unnecessary work. A formal planning system like Microsoft Project should be used to provide visibility and control. Make certain activity to create each deliverable and each target are in the plan.
11.	Project estimates.	Now that the plan is in place, reconfirm or change the original project estimates for time, staff, and investment. These estimates should be realistic. They should not be short because the team is afraid true estimates would not be accepted. If the estimates have changed, obtain a new commitment for the project. This recommitment should be obtained for any changes to estimates.
12.	Change Management.	As much information as is possible should be shared with the managers and staff in the business areas involved in the transformation scope. It is important to drive out fear and establish trust. People can make any project succeed or fail.
13.	Obtain and review documentation.	This is the first team step in building an understanding of the business areas in scope. It is also needed to clearly identify what information is available and what will need to be found. Building this knowledge foundation will let the team start the project fully prepared.
14.	Schedule interviews to start immediately after the project kickoff.	As the foundation is being completed, interviews with managers who will be hard to find time with should be scheduled. Each interview should have a purpose with questions pre-determined and discussed with the team to see if other questions should be added to avoid additional interviews. These questions should be sent to the person being interviewed.
15.	Sub-team use.	Determine if sub-teams for different business areas or functions will be used or if everyone will be interchangeable in informal specialty groups.
16.	Interactions.	IT, Legal, Finance, Security, and other specialty groups may be involved at some point. The senior management of these areas should be contacted by the sponsor or Project Lead and their potential involvement discussed.

17.	Go, no go decision	This is the last full backout point. The sponsor and the Project Lead should meet with senior management to provide an overview of the transformation and obtain approval to proceed.
18.	Announcement Preparation	The official launch should be accompanied by fanfare. Emails from senior management, a formal overview meeting for everyone who will be involved should be planned or a podcast with the CEO created. The goal is to show senior management's support.
19.	Launch.	The unofficial launch will be the establishment of the foundation activities. This was a milestone in the approach. The project launch starts actual activity.

Getting Started

At this point, the company will have confirmed approval of the transformation, selected, and installed the Hyperautomation tools, chosen and modified a formal Business Transformation methodology, trained both business and technical staff, and the foundation will be in place. All that is needed is available.

The project is now ready to become visible in the company. It will involve several people and affect everyone. Expectations must be carefully managed. However, this does not mean changing the approach, activities, or products to suit any single manager – other than the sponsor. Change at this point becomes an internal political game and approval must rest in one authorized person – the sponsor. Approval for a change will need to be based on an impact analysis so management understands the implications of the change on the transformation.

The initial interviews will also have been set up and the team will have studies, and all available information, and be ready to interact with all levels of managers and with staff.

The project will begin with the checking of available business models and their information.

This list of tasks will get the project started. It will not be a methodology or complete list of all tasks to perform a transformation project.

Getting Started		
Starting is the Hard Part		
	Action	**Notes**
1.	The evolution must be formalized with specific steps and deliverables, and	The future direction of the company and its transformation will now be formalized along

	anticipated timelines. The investment plan will be based on this evolution plan.	with an evolution plan defining major steps and the goals of each step.
2.	The models and information will have been evaluated in the foundation stage of the project and time allocated according to the quality of the documentation. Confirm process models and other information – correct as needed. If process models do not exist, build them.	Meet with each business area manager and review all collected information on their area.
3.	Create or update the current-state business operating models and information.	It is critical that the current-state models of the operation and supporting information is as complete and correct as possible. This induces activity, application and their use, rules, problems, data use, performance, seasonal volumes, and more.
4.	Select the Hyperautomation tools that will be used.	The company will have licensed one to multiple Hyperautomation tools. Select the Hyperautomation tools, licensed applications, and legacy applications and tools, and define what each will be used for. The solution's technical architecture is defined.
5.	Determine the way Hyperautomation technologies will interact with legacy systems, data management, interfacing, and more with the IT architects.	The Hyperautomation and other tool access will be set up by IT. Access will be set up for tools and applications and other information will be finalized at this time.
6.	Confirm the team's understanding of the high-level conceptual future business model and the strategy to get to that model.	Turn the vision into a future-state full business operating design.
7.	Define the high-level operating capability design that will be needed to evolve with the business and IT.	Identify the automation capabilities and basic automation architecture for the future and define the technical environment that will be built.
8.	Evaluate the current IT operation - strength, flexibility, legacy infrastructure, architecture, application, and their usefulness - what needs to change now and what can wait.	While this Transformation design is being built, it is recommended that the highest value changes to the operation be identified, and the immediate changes needed to be made to the IT support capacities will be made.
9.	Build the future-state transformation business design. This is a detailed design. The strategic business model will provide a probable picture of the future-state operation and its capabilities. It will also outline how it is envisioned that the Hyperautomation platforms will be used and why.	The future direction provided a transformation framework and time frame and is the foundation for the redesign of the business area in scope. Based on the current-state operating models and relevant information, the transformation team must now decide what will be built, what will change and what it will change to. All automation support will be defined, and its capabilities will be discussed with the IT Architect. This will become the future-state operating model. In this design, the operation will be streamlined, automation support will be aligned to the business activity, and performance measurement will be built into the operating design. The process models

		will be hierarchical and comprehensive showing context. This allows the new design to be broken into business functions with all their activities and lower-level models defined. This division of the model is the foundation for determining the number of evolution phases or steps and what each will contain. The detail models for each phase in the solution's development will be reviewed by the transformation team and final adjustments made.
10.	Vet the future-state operating model design.	Review the new operating model at a detail level. All affected business managers and the six architects of Transformation will need to be in this review with the sponsor. All changes will be noted and made to create a final operating design for the future.
11.	Determine the application requirement at each interaction point in the future-state models and define their support and technology – Hyperautomation, legacy, licensed application.	The future-state business model is now finished along with the automation support model and individual application requirements. The individual evolution phases are now estimated, and the Transformation construction can now begin.
12.	Check competency in the technologies, methods, techniques, and concepts that will be used, and initiate training programs as needed to build expert-level capability.	Business and automation transformation is a new type of project in most companies, and both require specialized training if the projects are to succeed. That training is use-based for modeling and rules definition on the business side (except for basic capability information) and Hyperautomation product-specific on the IT side. If the company does not have technical infrastructure architecture skills, it will need to obtain assistance in this critical area.
13.	Begin the Transformation business design construction.	Mobilize the project team, notify all participants of the start and begin activity according to the project plan.

These start-up activities will end with the beginning of the formal transformation project activities. The initial steps in the transformation initiation are above and are included because of their importance in providing consistency and lower risk to the transformation. The transformation plan will define a multi-year evolution to a transformed business operation and modern IT support. However, as noted earlier, given the speed at which Hyperautomation capabilities are being released and the rapid evolution of the Advanced Technology, the strategy, direction, vision, and targets of the Business Transformation will most likely evolve and change as parts of the original design are replaced and the design, approach, technology, evolution, and target future-state operation may change. For this reason, those involved in innovation should meet quarterly to determine if changes are needed.

READINESS ASSESSMENT

Transformation Readiness Assessment – Is Your Organization Ready and Able to Start on This Journey?

The place to start any journey is with an understanding of your past and your strengths and weaknesses. The fact is that some companies have serious problems and others cannot afford any new technologies or to fund a large effort. In other cases, the internal culture is such that because of successive waves of cost and staff reductions, people will not be eager to support what they see as another round of staff reductions. In still other companies, the best and most knowledgeable staff members will not be allowed to stop their work and join even high benefit projects. If an honest self-assessment indicates that you are not ready, do not start the transformation – you will fail. However, the assessment should tell you where your group is weak and what should be improved so that you can take corrective action.

Then you can look at the journey ahead and determine what you need to change, acquire, and/or learn to be successful. This part of the chapter is focused on helping you understand why these projects fail and assess how past actions have caused success or failure. Of course, the failure points need to be addressed and the actions that lead to success will need to be evaluated for applicability and continued relevance.

Many companies believe they can literally just start transformation efforts. Experience has shown this to be a significant underlying cause of failure. These are large, complex, disruptive, and often resisted projects that require "campaign level" preparation. The answers to the questions in the "Transformation Readiness Assessment" will help point you to actions or decisions that are needed to help set the project up for success.

The answers to this assessment are an opinion and as such will vary among different people. Because of this, it is suggested that the business operation and IT be involved as co-managers of the study. All affected business managers, as well as some IT Application Development and Maintenance Managers should complete the "Transformation Readiness Assessment" to provide a more representative opinion. Following the completion of the assessment, all who filled out the form should meet to discuss the findings and share reasons for their points of view. This meeting should produce a final assessment findings report.

Each question should be given a rate between 1 and 5 with 5 being the highest rating. Some questions are yes or no with a yes being 5 points and a no being 0 points. All others are subjective-based on your professional opinion as the question affects your group. Subjective questions should be rated between 1 and 5 depending on your opinion.

Remember the rating is subjective, so be prepared to provide reasons for your rating.

Steps	Assessment Question	Rate 1 to 5

Transformation Readiness Assessment

Steps	Assessment Question	Rate 1 to 5
Determining What Needs to Be Built		
1.	Has a transformation group in your company been monitoring Hyperautomation and Advanced Technologies?	
2.	Does this evaluation group have a defined list of new automation technologies along what they hope to achieve with each technology?	
3.	Why transform – what does management hope to gain? Has the executive team agreed on the objectives of the transformation? Has a transformation project been approved?	
4.	Have the major problems and opportunities been defined along with the benefits associated from resolving them? Note: Only measurable benefits count.	
5.	Has the business strategy been modified to provide strategic objectives and a new high-level future-state operating model?	
6.	Is the project clearly defined – scope specific major measurable goals, sponsor?	
7.	Have all the outcomes for the Business and Digital Transformation and for each business area been formally defined with clear measurable success criteria identified?	
8	Have all the outcomes been aligned to strategy delivery and the creation of a future operation?	
Foundation		
9.	Does the project have a formal, comprehensive, and detailed project plan?	
10.	Have all strategic and other deliverables from the transformation been aligned to the project plan to show how they will be fit together as the solution is built?	
11.	Have experienced managers been assigned?	
12.	Has the project budget been estimated by an experienced Business Transformation manager? Were the estimates approved or reduced? What is the basis for the reduction?	
13.	Is the budget adequate?	
14.	Has a collaborative team of managers from the affected departments been brought together?	
15.	Have the business and digital parts of the transformation been aligned so actions needed to deliver both the business and automation sides of the transformation can be delivered simultaneously?	
16.	Will a formal Business Transformation methodology be used to guide the project? Note: These are specialized projects – neither IT nor standard business project methods will work.	
17.	Has the project methodology been modified to fit the needs of the Business and Digital Transformation activities?	

18.	Has a project approach been chosen – incremental over time as the solution evolves or a single all-inclusive big bang approach or ????	
19.	Has adequate workspace been allocated – or will the project be virtual, and if so, has adequate electronic conferencing been set up?	
Preparing For the Project		
20.	Have comprehensive, detailed, up to date business models been certified by each business area manager?	
21.	Have business rules been identified and defined? Have out of date rules been eliminated?	
22.	Are data architecture models complete and up to date?	
23.	Are application interface models (what applications interact with which other ones) showing what passes and when. Are they up to date?	
24.	Are current legacy applications in good condition?	
25.	Is current legacy application documentation complete and up to date for the applications likely to be included in the transformation?	
26.	Is the current automation environment and staff able to adequately support the transformation project?	
27.	Is new Hyperautomation technology to be used – iBPMS, RPA, AI, IA, etc.?	
28.	Have the application developers and the business staff been appropriately trained on the use of the new Hyperautomation technology? Note: The business staff will just be trained on the capabilities and use of the new technology for modeling.	
29.	Does the project plan and budget include the needed investment in Hyperautomation or technology that will let the company innovate?	
30.	Has this technology been incorporated into the company's automation environment?	
Staffing		
31.	Do the current technical developers know how to interface the legacy applications with the ones generated from the new Hyperautomation platforms?	
32.	Will the project be staffed by the best people from each business area?	
33.	Have expert-level technical developers been brought in to lead/augment the internal development team?	
34.	Are all of the people on the business and technical sides of the project team using the same configuration of PCs and software?	
35.	Have the business and application developers been trained in the use of the new application tools?	
36.	What is the in-house staff's competency level in using the new Hyperautomation tools that will be used? – 1 being low.	
37.	Are all participants up to date on the transformation's objectives, the plans, the timing, and their roles?	
38.	Add questions to customize this review to fit your exact situation and concerns.	
Summary Score		

These questions are representative of a detailed pre-transformation preparation study. Given the importance, scope, investment, and importance of these projects, it may be worthwhile to make certain the proper foundation is set.

Any rating of a 3 or under indicates an area that needs attention before the project starts. However, the total score will provide a readiness indication, with a low score indicating a problem. The individual scores will show where all the raters believe weaknesses can be found – each should be dealt with. Prioritize the order of these improvements based on lowest scores first.

However, do not expect a perfect score of all fives – if people are honest in their evaluations; we have yet to see a perfect score. We suggest that the evaluation be redone if more than half of the scores are 5's.

If your answers point to a marginal readiness, we recommend you start the project by bringing at least most answers to a 4 or 5 rating. This will provide a solid foundation for the project.

Business Transformation Fail Point Causes – Avoiding the Critical Mistakes of the Past

One of best ways to improve is to learn from past mistakes and successes. Every project will include a version of the same types of steps as previous ones – even projects that deal with Hyperautomation and Advanced Technology. However, there will also be differences and how these differences are handled will add to the collective experience of what works and what doesn't. This analysis will show the approaches that are best used when dealing with different groups in the company and where potential constraints will be found. All of these experiences should have been noted – at least as past project close-out notes.

However, formalizing and storing these notes requires a discipline that we have seldom found. So, it may be helpful to conduct a quick set of interviews with past large project managers and key team members – like data architects, automation solution developers, and business leaders. This information could prove to be insightful and help avoid problems – reducing risk and cost.

Performing the Transformation Fail Point Analysis

This assessment is an abbreviated version of an assessment that our teams have conducted at multiple companies. Although we adjust these review points to reflect the client and the situation, the points below represent a set of commonly found issues that if individually severe,

can cause failure. Our experience with rescue projects also shows that if several are present in a transformation, they will together cause the project to fail. However, this is not an evaluation. It is rather included to build an awareness of these fail points so the team can look for them and managers can mitigate those that cannot be avoided.

For a baseline, consider past transformation projects, especially those using one of the Hyperautomation tools (BPMS, RPA, AI, Cognitive Computing, and/or Conversational Artificial Intelligence), against this set of conditions. This review shouldn't take long, and it may help focus the approach's improvement for future projects. If you have a transformation effort underway, this review may help to avoid problems or it may help to correct issues that the project is experiencing.

The review should be collaborative with members of the review team leaving personal biases and the ever-present blame game at the door of the meeting room. Enforcing this is tough and takes a strong manager, but it is necessary. The goal is to identify what went, or is, going wrong and to determine what each of these key people need to do in their organizations to help turn the problem around.

In addition, the collaborative team should include the sponsor, both business area managers who have been or will be impacted by the transformation, and IT managers with the project manager, and key technical developers. It may also be worthwhile to include the technology vendors whose products you are using. Again, a strong manager needs to control this meeting to avoid it deteriorating into a pointing match. Because if that happens, nothing will be resolved, and everyone will just leave frustrated and angry – with some carrying long-held grudges.

In these reviews, every point of view is considered valid and must be considered. Each represents something that the person is or has experienced. The reason for the issue may prove to lie outside the transformation, but each must be discussed to find the truth. For this reason, it is important that each collaborative review begin with a type of questionnaire about opinions of the project and what is wrong. This should be sent out two weeks before a meeting and the responses consolidated. If there is a probability of argument, keep the responses in the consolidation at a summary level and anonymous.

The critical transformation fail point review will help coalesce opinions, ideas for project improvement, things to look out for, and much more. The only real issue is trust. The people involved in the review must be open and honest – even if it is just their opinions and nothing more. There are often hidden gems based on perceptions that can help teams past pitfalls and over obstacles.

We have defined seven categories of fail points that consistently plague an organization's ability to succeed at Transformation. Each is critical unto themselves. Performing well in six of seven failure points still points to a vulnerability, as each and every failure point has the potential to significantly undermine your transformation agenda. However, while all of these

factors may not be applicable, some will apply in almost any transformation or large project. The goal is to recognize them and mitigate them.

The following review should be designed to promote discussion and formulate a consensus – if possible. The fact is that the greater the disagreements and the more of them there are, the less likely it will lead to success with the transformation.

These fail points are:

1. **Leadership** – commitment to transformation and the ability to fundamentally shift behaviors required of Continuous and Hyper Transformation. Failure points are typically found when leaders cling to outdated mindsets, approaches, and concepts. While all were once relevant, they may have little value in transformations today and become a problem when someone insists the team needs to apply lessons from the past that are just not relevant to the hyper-transformative world that we face.

2. **Adaptability** – "standing on bent knees" is a metaphor that best describes adaptability. It is the need and ability to be ready for anything, to be able to pivot and shift as change occurs or as your organization creates disruption. The ways of the past may not be the ways of the future. Even long-standing management truths change over time. This is a difficult fail point because some concepts will have worked in the past. But adaptability and change can be strategic assets. The ability to adapt to constant change and disruption will set your organization apart from all others.

3. **Approach** – each organization must tailor its approach to transformation based on the unique needs and opportunities within its industry. However, lessons from the field consistently expose failure points which are a result of narrowly focused transformation agendas that do not include the four dimensions of transformation – specifically Strategic, Operational, Organization, and Digital Transformation.

4. **Planning** – "no plan survives contact with the enemy" is a classic military quote. It applies to transformation as well. A solid plan is essential to frame and direct your transformation; however, to succeed your plan must be adaptive and be able to quickly change as conditions change. This need to adapt is also a quality that your transformation team leaders must have to succeed. This adaptability includes anything from shifts in the business strategy, responding to unexpected market conditions/threats, and the need to rapidly change business operations/operating models, etc. This ability to be agile in your approach to planning is essential as transformation unto itself is an adaptive capability that begins with adaptive and flexible planning.

5. **Design** – each iteration of transformation requires a vision of the "to be state". The design clearly articulates what the future-state will look like across all relevant aspects of the transformed organization. We take into consideration the four dimensions of

transformation and evaluate if and how Strategy, Operational, Organization, and Digital aspects need to be evaluated, designed, and changed. A critical aspect of design is recognizing that the future-state design may shift as conditions change. As the future-state operating and digital designs are linked to vision and strategy, these changes may impact each business area and function, creating a ripple that can impact any part of the transformation. It is thus imperative that any design changes be viewed from multiple perspectives. The design needs to be adaptive throughout the design and implementation.

6. **Technology** – organizations are becoming increasingly reliant on how technology, digital solutions, and automation together form the foundation of success. Ensuring that your transformation leverages, while not being constrained by all things technology is another key failure type that must be constantly re-evaluated so that speed and the ability to shift are imbedded in all technology and digital aspects of your transformation.

7. **Implementation** – in the past implementation signaled the end of the change cycle. Changes were put in place; people were equipped with the tools/training necessary for their success and the business breathed a sigh of relief that a "new normal" would now be in place. This is no longer the case. As soon as changes are put in place, the next cycle of change begins. Change is constant, ongoing, and never ending. It defines the environment that organizations live in. To stop or slow down change, will result in becoming irrelevant. As a result, implementation does not signal the "end," but rather the beginning of the next change cycle.

Learning From History

History is a hard teacher – it takes no prisoners and accepts no excuses. We can learn a lot from one another – especially looking at how we handle problems and how we react to conflict. Although transformation projects, especially Hyper Transformation projects, will likely be new, every company will have had large business operations projects and large IT projects. Part of sound project management approach ends the project with a project close meeting where the more significant learnings are discussed and formalized for the record. In most cases, these are simplified and then ignored. But there is a lot to learn in those dusty pages.

Risk Identification – Business Transformation Fail Point Causes

The following table identifies seven critical risk areas that each needs to be optimized to help ensure your successful Business Transition. They are:

1. Leadership

2. Adaptability

3. Approach

4. Planning

5. Design

6. Technology

7. Implementation

Business Transformation Fail Point Causes	
Leadership	
Failure Point	**Cause**
Wavering leadership commitment. Lack of long-term commitment.	Transformation efforts are long, costly, and difficult to keep people excited about. That is one reason we created an evolution approach with frequently delivered solution components. However, as conflicts for funding occur and interest wanes, it becomes difficult for senior managers to remain excited about the project and continue their commitment. This is a cause of funding decreases and scope change.
The ROI (Return on Investment) Blunder. At the start of a BPM project, most organizations invest significant time and effort on the ROI assessment of BPM. And after the BPM implementation, if a project does not deliver the promised ROI, it is classified as a BPM failure.	Few Hyperautomation projects (BPMS, RPA, AI, and others) are initially successful. The reasons are varied but the more important ones are in this list. However, a key culprit is the iteration disconnect. To IT that means to keep trying and modifying a solution until they get it right. To business managers, a lack of target delivery or expected benefit is a failure. We have seldom seen a large project using these technologies deliver expected results when initially released. This is an expectation management, a rules identification issue, and a development approach issue.
Inadequate executive involvement and backing.	Budgets are tight and competition for resources in most companies is fierce. Unless there is a crisis, it is difficult to get and keep senior management's attention. This is especially true for long projects that are picked at by most other managers in an attempt to pull funding or resources from it.
No or poor buy-in from the managers and staff – fear of being evaluated for the past and current-state of the business area or process. Note: In many ways this is a result of poor change management and failed attempts to improve the business operation in the past.	In many companies, the managers have experienced the "Improvement Program of the week." They and their staff often pay little attention believing this is a temporary program and it will fade away. This same lack of buy-in can be caused by distrust, poor morale, too few staff to absorb additional work, and change fatigue. This issue is often cultural and results from harsh evaluation processes.

Unrealistic expectations.	Leadership often sets a "high bar" that is unachievable within the prescribed time line, resource constraints, and degree of expected change. These are stretch goals that become "the" goals over the year. These goals are meant to be difficult and that become impossible when anything causes delays. This sets the project up for failure before it starts.
Accountability is not at the top level in the business area.	If there are no clear lines of authority and responsibility, the team will get direction from multiple sources and confusion will hurt the project. This is also true of success evaluation. Who will evaluate success and who will set the measurement approach? That is the person who the project manager should interact with and listen to. No transformation project, no matter how successful, will please everyone – some managers will lose staff, some people will lose their jobs, some groups will be exposed for "taking it easy" and not working hard. When success is based on opinion, the project will often be unfairly judged as failure as it doesn't meet all expectations.
Reluctance to be measured. Note: Few operations today are free of employee fear for their jobs. Any group that is afraid will hide information and it will be difficult to obtain accurate information.	Uncooperative business managers and people can delay projects in a surprising inventive set of ways. Delaying answers, not attending meetings, sending people to meetings that have no authority to make decisions, people who are afraid to make decisions, hiding information for fear that it will make them look bad and lead to their dismissal are all real fears today. If this is widespread in the company, the project will constantly be reworking designs as the teams eventually find out the truth.
Work with the business area manager to determine what should be measured and automate it. Manual measurements can easily be modified.	It is important that performance measurement information be used for improvement and training and not be used punitively. If it is used only once to reduce staff or terminate a person, the team will never have trust again and the measurement program results will be compromised. In addition, determining the information you need and then where that information can be found is critical. Too many performance measurement efforts literally measure everything because they don't know what information will really be needed to drive analytical programs or algorithms.

Adaptability	
Failure Point	**Cause**
A lack of collaboration.	This is often a commitment or cultural issue and is the result of a manager's total concern for his or her own group or work. It is shown that failure to attend collaboration meetings, sending lower-level people who cannot make decisions to meetings, delaying decisions, or a reluctance in meetings to consider anything that not obviously is to the manager's direct benefit.
Change planning and fatigue. Note: Some companies have been changing their business operations for years – with no or minimal results except for staff reduction. This builds a resistance to take change seriously.	Overwhelming the organization and its people with change and transformation that is not aligned, has caused resentment – especially as people are fired and others have to absorb their work. "Employees" ability to absorb change has plummeted precisely at the time when more organizations need change to reset (Gartner 10/14/2020). Furthermore, any large-scale change or transformation needs a clear and BIG compelling case to excite and motive your people. Otherwise, the change will be met with skepticism and be seen as the next in a long history of "failed" initiatives.

Poor change management.	Change is a painful process for people, and it must be carefully managed. When it is not properly managed or the change is not well communicated in a way that puts people at ease, the result is widespread confusion and uncertainty. That will cause people to distrust and lengthen the entire project.
Poorly equipped (wrong) team.	Peoples' skills and knowledge make or break any large project. When the complex change and or transformation projects lack the skills and capabilities to successfully design, plan, and implement the magnitude of change that is required, team frustration, fear, and stress will make a poor situation worse. Often people and teams who have been successful with smaller projects are handed the reins of a large-scale project but lack the experience to scale. Allowing teams to grow into the challenge is good, but it must be carefully monitored, and help provided when needed.
Myopic leadership – focused only on their business area. Note: Understanding end-to-end processes that flow through a business area you are transforming is critical. You will have an impact on upstream processing and downstream processing. Myopic attention to business area boundaries will cause problems and maybe failure.	Many managers only care about their business area and their incentive program and not what is good for the company. That is the why they are incented. Breaking down business silos - process crosses business areas is critical to success because processes across multiple business areas and a complete picture of the operation are necessary to redesign even part of it – everything is connected and the impact on other business areas can be catastrophic causing compliance issues and quality problems.
Fear of Failure.	Support erodes when projects take longer than anticipated, have problems, or have project members openly question success. This has caused projects to be cancelled. To a large degree, this results from inexperience, improper expectation management, or poor estimation. Depending on the corporate culture, management may be averse to innovation or other learning-related failure and may want to stop a project that is not meeting expectations.

Approach	
Failure Point	**Cause**
Inappropriate approach - Big Bang and little pops. Note: Although the high-level new operations design should be viewed as a single design, it should be broken into functional parts for development and implementation. This allows the operating design to be viewed as a complete, integrated business area level to show how all the business functions fit together and how the work flows. It also describes automated support, and	In the fast moving and faster changing business world of today, companies cannot afford to wait for a year or more to see the results of large projects. We have seen this with projects in insurance companies and banks that have never been completed. These projects are simply too complex and results too distant to be useful. As time progresses, precious funds are spent and no results are delivered; leadership loses faith, the strategy may have evolved, and patience for the long-promised results fade. Conversely, other change efforts are expected to yield immediate results. We used to call this "low hanging fruit." The reality is that all the low fruit was harvested long ago. Now we have bare branches and broken processes that need to be reimagined and re-built.

both issues and opportunities for success. By showing how all the activity fits together and what flows and when, it is possible to divide this business area or process design into functional components and build them individually – you know how the functional components fit together from the new future-state business design and what activities are performed. This allows specific redesign benefits to be defined along with how success in delivering each benefit will be measured. This lets the new business to be built in component parts and then integrated into a new whole by linking the activities according to what passes from one to the other.	
One-sided approach to transformation.	The old IT approaches used for gaining requirements and use information are now anachronisms in the Hyperautomation world. Requirements come from detailed business models with notes on use. Rule identification and definition is as important as noting activity and effort – as is data use and transformation as it moves. But while these things are important, we have found that it is critical to have business users involved for UX and ease-of-use reviews. Without this, the project will fail. The only question is how badly.
Lack of understanding that these are business projects with IT support – not simply technology projects.	The change or transformation is enabled by the latest technology or digital solution. This is often a "hammer seeking a nail." This is the promise of a golden solution without a clear problem statement. This results in bloated budget over runs, unaligned expectations, and operational disruption as solutions that do not fit are forced into the organization.
Focusing on small problem resolution – instead of focusing on real value to the business – objectives without impact definitions do not define value.	It is easy to get lost and stalled in small problems or error fixes. But although beneficial, correcting these issues will never have a significant impact in the long run. Transformation looks for the big issues and asks the big questions on strategy, use of Hyperautomation, innovation, market share growth, etc. Although smaller problems and improvement opportunities will need to be addressed, it is well advised to deal with the game-changing opportunities and innovations first.
Current business processes are not "customer-centric." ... Nor is this concern for customer interaction built into the new design.	The place to start is not with requirements. It is with a detailed updating, or initial business modeling, of the business operation. The current-state analysis can then look at what must be done to make the operation customer centric. The part of the work that will be automated can then be redesigned to fit into both what data is coming from upstream in the workflow and what is needed downstream – first by customer facing activity and then to support the rest of the business operation.
The design team does not understand what the customer	Processes and applications must be flexible enough to keep changing as customer wants and needs change, and as the way they want to interact

wants or what the customer needs.	with the company evolves. It is imperative that a customer-focused group keep track of customer wants and needs and continuously update the transformation team. But in most companies, everything is related to everything else and application systems cannot be designed in isolation from the rest of the work – it is critical that it all be designed to work together. If it isn't, it will fail to deliver real benefit to either the customer or the business.
Unaligned investments.	Companies often allow different business units to operate independently resulting in multiple BPMS and RPA tools. This creates a situation where there is little to no interoperability and little chance of shared services. The result is higher cost of Hyperautomation tool ownership and an inability to leverage investments to save costs in other business areas.
Poor project management – trying to manage a business transformation project as an IT project. Note: Transformations are large and complex with a great number of moving parts that must be managed concurrently. Also, transformations are unlike other projects and consistent success requires specialized management skills and experiences in managing large multi-phased projects that redesign and rebuild critical business functions without undo disruption.	Business Transformation is all about business operations and the strategy that defines what must be done. These are NOT technology projects. They cannot be managed by IT alone or managed as an IT project would be managed. The technical project manager and current technical approaches seldom begin with the creation of a complete, comprehensive model of the new business operation. Without this model the solution is forced to be built in unrelated parts based on business cases – lacking the context to put these parts together easily.
Business and Digital Transformation are considered separate projects. Note: Strategy drives all transformation. That strategy defines needed business capabilities. These capabilities are delivered through a process which is broken into functions and distributed among the business areas. This drives Business Transformation. Business strategy and its needed capabilities defines what IT needs to support and the capabilities it needs to provide through automation. This determines the architecture and the products that will be needed to support the business operation. These product capabilities are	When viewed as separate transformations, the links between strategy, the new strategic business model and the automation capability needs are broken, and IT will have no direction as to the real strategic needs. The result is that Hyperautomation technology acquisition is not strategic and is justified on a project-by-project basis. This does not allow a comprehensive overall automation transformation strategy to be built and precludes the creation of an efficient integrated IT infrastructure architecture.

then used in transforming the business and IT operations.	
Flawed information gathering about the business and what is of high-value. Note: Before using any existing model or information, confirm it with the business area manager.	Old business flow models are actually worse than no flow models. Any models over a year old should be redone. In addition, flow models that were built without direct, frequent contact with the people in the business area will be incorrect and should not be used.

Planning	
Failure Point	**Cause**
Unrealistic time constraints.	Task estimates can be way off when a project is estimated at too high a level or by people unfamiliar with the legacy or new Hyperautomation technologies. Getting an expert opinion on duration, staffing, and plan estimates will be useful for those new to the hybrid Hyperautomation approach.
Unrealistic goals.	Overly aggressive goals can often be unrealistic – causing failure before the project starts.
The lack of a clear vision, the reason for the project, what should be done, what it will take to do it, the obstacles that will be faced.	If the project outcome is not clearly defined along with goals and benefits, the project will be defined by interpretation, inference, opinion, and personal agenda. Verbal agreements on these issues are subject to differing term definitions, nuanced points, and misunderstandings. This will kill a transformation or any project.
Inadequate planning. Poor planning and lack of agility.	Change requires a plan. But the plan must be able to adjust and evolve. As soon as a plan is created, things change. The plan must be designed to incorporate both internal and external changes and unsuspected changes caused by a variety of change drivers in the industry, as well as new technology releases.
The plan is too high a level to be useful or too detailed to be understood.	Planners really don't have the experience needed to help direct and coordinate activity among groups.
Devoting too little time to the business definition and current-state analysis.	Failure of every person on the team to really understand the business operation, its problems, its needs, its constraints, and what is important will result in poor business operating designs and unending solution iteration as the team tries to deliver something useful. From experience, a project will fail if the current-state business analysis is not well done. You can design a new conceptual model without any understanding of the current business, but you will not be able to implement it.
Misalignment between the groups involved in the planning activity.	People often "read things into words" – any language is imprecise, and it is hard to avoid misunderstandings. Misalignments need to be identified and aligned to control expectations and deliver a solution that is accepted.

Design	
Failure Point	**Cause**
The future-state strategic business model will define the conceptual business operation at a future point in time. However, this	This translation forms the foundation for the operational design. It must be discussed among all team members, and definitions and concepts agreed to.

conceptual design will need to be translated into an executable model of the business and taken to a detailed level. Differences can and do occur in this transition as different opinions and designs are debated.	
Misunderstanding of who will do what and when, can lead to staffing availability issues.	Lack of management commitment that allows other commitments to supersede the transformation needs can have a serious impact on the transformation. This is an issue for the Project Lead and Sponsor to bring to executive management.
Designs that should not be built.	It is possible to create designs that will not work and should not be built. This is especially true when the team is trying to gain innovation advantages. This is why we recommend that the new business designs be run through simulation model software and tested.
Rejected designs.	"Turf encroachment," loss of staff, loss of responsibility, etc., will cause managers to reject good new designs. Assuming the design proves feasible in simulation, this is a project management and sponsor issue.
Inadequate automation support.	At times, applications do not provide the support they are believed to causing the business design that relies on them to need significant modification.
Disruptive Business Designs.	Just because something can be done, does not mean it should be done. Operation designs can be worse than the original.
Misaligned operating designs.	It is possible for operating designs to drift from delivering the intended capabilities and fail to hit goals or deliver efficient results.
The solution design is complex and hard to use.	This design would violate the operational streamlining and complexity elimination goals and the User Experience objectives. This often is a result of an assumption that people using the system understand much more about the technology than they do.

Technology	
Failure Point	**Cause**
Lack of understanding of what a BPMS is and how to use it.	BPMS is a central technology. In a large solution, it is the backbone from which all special purpose automated components (RPA, AI, and more) will connect to. There is also a general lack of understanding of the importance of detailed accurate business models with performance and decision management built in and how requirements are derived from models. There is also an often-catastrophic misunderstanding of iterative development.
Lack of understandin_g of BPMS, RPA and other technologies.	These are both concepts and tools. People believe that the week of training from the vendor prepares the teams to at least take on simple projects. The fact is that it usually doesn't do much more than introduce them to the tool and prepare them for individual experimentation.
Misunderstanding of the impact of complexity – Hyperautomation tools use for complex situations is neither simple nor straight forward – it takes experience.	These tools are not easy to use when you get to anything complicated – the system architecture is critical when dealing with complexity. It can enable approaches or prevent them. This is where external specialist help can be useful.
Lack of long-term focus on BPM.	Transformation or large-scale improvement projects change the operation and the culture. However, over time, managers and staff change and unless management continues to promote a culture that is based on

Any type of Hyperautomation or technology use represents a long-term commitment. It is important to promote BPM as an organizational way of thinking and functioning; this requires the long-term buy-in from line managers and staff.	improvement and operational flexibility, the process and the way activity is performed will drift back to an inefficient operation where shortcuts and rules interpretation make the operation ineffective.
Legacy. New Hyperautomation tools need to be integrated into the current IT operating environment. "Has integrating new technologies in the past gone well or if not, what went wrong and why?"	These tools are not easy to use for anything remotely complex, although they do get easier over time as people learn how to use them. Adequate time is seldom allowed – time estimate errors throw off cost estimates and expectations are off at the start of the project. As with all automation tools, Hyperautomation tools must be integrated into the current technical operation. This is a difficult job and depending on how it is done, will help or hinder the use of the tool.
Poorly trained on either the legacy or Hyperautomation tools that are being used by the IT group. Note: The people who build the underlying applications and who are responsible for data availability and quality must be your top developers. They must be both trained and experienced in the use of the tools and the modeling techniques the Hyperautomation business design team is using. In addition, they must also know how the applications generated from the new automation tools will interact with the legacy technology you have in place.	Training is one of the first things cut when budgets are tight. When this happens with technology training using new technology, the training will produce poor results. This is a major area cause of delays, restarts, and overall failure. As noted, vendors typically give a week of training on using their tools. This is inadequate. The Hyperautomation tools are robust and highly-complex. While they are easier to use than legacy tools, they are not intuitive and are simple only for small narrowly focused projects. Use in operational applications with interfacing and much more requires experience and competency. Investment in training and in experience in building small project solutions is important and well worth the cost in the time and problems it avoids.
Inadequate UX in the use design.	Many technically focused efforts fail to adequately design system use, screen use, and terminology for business staff and customers to use. Systems designed by application developers are generally difficult to use – developers often assume business users have much more technical knowledge than they do.
Forgetting to manage the changes and their impact – not understanding how to implement BPM-based new business operations – change management.	Experience, training, mentoring based on old ways and not properly followed through by mentors or peers usually fails to build experts. Company training is not prepared to continue to invest in knowledge development after a person completes a training course.

Implementation	
Failure Point	**Cause**
Inadequately tested solutions sometimes have bugs and logic disconnects.	Testing can be either to prove a solution works or to see if the tester can break it. If it is broken, the break can be fixed and the new version will be stronger. Too often, to save time, testing is marginal, and tests only try to

	see if features work. At times, to make deadlines, applications are released for use with problems.
The cutover to the new solution's systems can fail.	Part of implementation is a process that takes applications from a development environment and puts them into a "production" environment. This cutover can have problems. Access and use tests should be run before the system is accepted.
Data load failure.	As the new solution and its applications are cut over to a production environment, the data for the system or systems is loaded into the files specified in the application. These loads can fail, either dumping data, introducing error, or breaking data keys, etc. It is critical that any data load be carefully checked before the application is accepted for use.
Interface failure.	Hyperautomation tools, like all other IT tools, take advantage of interfaces to talk to other applications. In Hyperautomation tools, this interfacing happens over standard programs called Application Program Interfaces or APIs. These can fail and must be tested in implementation.
Inadequate user training.	Regardless of how simple IT thinks a solution is to use – it seldom is. User training is critical, but comprehension is the real measure. Statistics show that up to 90% of what is taught is not retained within a month of the training. Addressing this requires a different approach to training – especially for new applications or new technology. Anyone who will use the automated solution must be tested and then any issues in understanding addressed. This is especially true with hyper-automation-based solutions – few people are used to working with AI or cognitive computing that is built into a new solution. Adequate training drives out fear and greatly increases acceptance. We recommend a series of training sessions – introduction and fundamentals, use of the automated tools, be followed with mentoring as the user begins working with the tools. Follow-up QA should be held after a week and again after a month. This is an area that is greatly underserved.
For Web applications, they can be too difficult to use without training.	No one will read instructions. No one really reads the "fine print" on anything. If the application use is not intuitive, it will be difficult to use. This is especially true for customers – once people experience an issue with a web application, they don't come back.
Problems with use.	As any automated solution is used, issues related to situations or scenarios that were forgotten or misunderstood, and a long list of other reasons, will cause problems with how the applications work. These problems will be uncovered during the solution's implementation. These are often called "bugs," but these problems are often caused by design or modeling issues and are not related to errors in the programming. When found, using hyper automation tools, these omissions can be quickly resolved. Design issues and errors in the solution definition or generation or with data use are a different category of problems but will also be encountered. Both types of problems can be found without disrupting the business operation if a final use test in a "model office" environment is done, where the business operation is simulated.

Note: Determine the strategic direction of the company and how it will get there. You will then be able to look at the failure points and align them to the potential places where they may affect the transformation and see how you can eliminate or mitigate each. This will improve your probability of success.

SELF-ASSESSMENT **Fail Point Causes Self-Assessment – Are You Better Prepared to Succeed Than in the Past?**

You may not have encountered all of these problems that have led to failures, but you will have encountered some and, in the future, you will encounter others. The real question is, "W*hat have you done about them and how successful has the response action been?" "Are the underlying causes of these problems mitigated?" "Has any follow-on action been taken to identify the problems sooner and to automatically have a response action kick in?" "How fast can you respond and how well will the response address the problem?"* Rate your organization based on the following groups:

- Leadership

- Adaptability

- Approach

- Planning

- Design

- Technology

- Implementation

Self-Assessment – Transformation Readiness

On a scale of 1 to 5, rate how ready you are to eliminate each of these problems – if they arise. Refer to the prior table for detailed descriptions of each.

Self-Assessment – Transformation Readiness

Group	Number	Critical Issue Review	Response 1-5
Leadership			
	1.	Wavering leadership commitment. Lack of long-term commitment.	
	2.	The ROI (Return on Investment) Blunder.	
	3.	Inadequate executive involvement and backing.	
	4.	No or poor buy-in from the managers and staff – fear of being evaluated for the past and current-state of the business area or process.	
	5.	Unrealistic expectations.	
	6.	Accountability is not at the top level in the business area.	
	7.	Reluctance to be measured.	
	8.	Work with the business area manager to determine what should be measured and automate it.	
Adaptability			
	9.	A lack of collaboration.	
	10.	Change planning and fatigue.	
	11.	Poor change management.	
	12.	Poorly equipped (wrong) team.	
	13.	Myopic leadership – focused only on their business area.	
	14.	Fear of failure.	
Approach			
	15.	Inappropriate approach - Big Bang and little pops.	
	16.	One-sided approach to transformation.	
	17.	Lack of understanding that these are business projects with IT support – not simply technology projects.	
	18.	Focusing on small problem resolution – instead of focusing on real value to the business – objectives without impact definitions do not define value.	
	19.	Current business processes defined are not customer-centric. Nor is this concern for customer interaction built into the new design.	
	20.	Unaligned investments.	
	21.	Poor project management – trying to manage this as an IT project.	
	22.	Business and Digital Transformation are considered separate projects.	
	23.	Flawed information gathering about the business and what is of high-value.	
Planning			
	24.	Unrealistic time constraints.	
	25.	Unrealistic goals.	
	26.	The lack of a clear vision, the reason for the project, what should be done, what it will take to do it, the obstacles that will be faced.	

	27.	Inadequate planning. Poor planning and lack of agility.
	28.	The plan is too high a level to be useful or too detailed to be understood.
	29.	Devoting too little time to the business definition and current-state analysis.
	30.	Misalignment between the groups involved in the planning activity.
Design		
	31.	The future-state strategic business model will define the initial future-state business model. However, this conceptual design will need to be translated and taken to a detail level. Differences can and do occur in this translation.
	32.	Misunderstanding of who will do what and when, can lead to staffing availability issues.
	33.	Designs that should not be built.
	34.	Rejected designs.
	35.	Inadequate automation support.
	36.	Disruptive Business Designs.
	37.	Misaligned operating designs.
	38.	The solution design is complex and difficult to use.
Technology		
	39.	Lack of understanding on what BPM is and how to use it.
	40.	Lack of understanding of BPMS, RPA, and other technologies.
	41.	Misunderstanding of the impact of complexity.
	42.	Lack of long-term focus on BPM.
	43.	Legacy. New Hyperautomation tools need to be integrated in the new solution – has integrating new technologies in the past gone well or if not, what went wrong and why?
	44.	Poorly trained on technology – not really understanding different legacy technology or new Hyperautomation tools or how to use them.
	45.	Inadequate UX in the use design.
	46.	Poorly trained on either the legacy or Hyperautomation tools that are being used by the IT group.
	47.	Forgetting to manage the changes and their impact – not understanding how to implement BPM-based new business operations – change management.
Implementation		
	48.	Inadequately tested solutions sometimes have bugs and logic disconnects.
	49.	The cutover to the new solution's systems can fail.
	50.	Data load failure.
	51.	Interface failure.
	52.	Inadequate user training.

	53.	For Web applications, they can be too difficult to use without training.	
	54.	Problems with use.	

Rating Your Ability to Deal with the Major Transformation Project Killers

The results of your self-assessment of how the 54 'Fail Points' could affect your project should not really be considered in aggregate – a total score or average will really not tell you much. Many of the issues on this list can, by themselves, kill a transformation project and a low score on these points should be looked at in detail and mitigated.

The severity of the impact each Fail Point rating will have on your transformation project is related to the complexity, criticality to the business, and cost of correcting the issue. The company response will be unique to the company and will thus need to be considered in light of your company's transformation status. This will let the transformation team determine if the company needs to fundamentally change some part of its operation or its approach to the transformation project.

It is also important to have multiple senior managers go through this evaluation and then to merge their opinions with those of the project team. Each of these managers will have their own insights and both similar and unique experiences that will be reflected in their review.

This Fail Point analysis will help to collectively identify the most critical changes that are needed to the transformation approach and initiate plans to eliminate the issues.

Insights - A Few Critical Thoughts

As you step back and consider the concepts and how they apply to you and your organization, we challenge you to frame your thinking around five key transformation concepts. This will serve to anchor your ideas to your plan, and your new operating design, and begin the implementation of your transformation journey.

The five key transformation concepts are:

1. Transformation is not an event, it is continuous. The speed of technology and other change drivers has increased to the point where companies need to react to major disruption events on a continuous basis.

2. Leadership must be aligned, committed, and determined to move towards a culture of change and high performance. Dysfunctions of an executive team is a show stopper. Ensuring your leaders are committed, aligned, and working together toward a common goal is essential.

3. Invest in people with the skills, capabilities, and practical experience in designing, planning, and leading Continuous Business Transformation. Build a team that has the skills and experiences as Architects of Transformation. This includes Transformation, Business, Experience, Process, Organizational, and Technology Architects.

4. Algin your transformation agenda and investment roadmap to your strategic agenda, and constantly revisit your investment priorities as the strategy shifts and changes.

5. Don't delay what must be done. Do it quickly. Change and disruption are the "new normal." There is no "going back" to yesterday.

Your Transformation to a Hyperautomation and Advanced Technology-Based Business Operation

When should you and your company start down the path that will lead to Hyperautomation and Hyper Transformation? Like most of these types of questions, the answer is "it depends." You really need to be ready and to come to consensus on the need and the investment. The first step in your Hyperautomation journey is strategic and involves a recognition that the business and societal aspects of each country are about to change as automation technologies evolve and both useful and fun technologies are released and improved.

The technology-based innovation trend has started and is picking up speed. Leaders have set the stage for the expanded use of mobile phones as mobile computers, communication devices, measuring hardware, gaming platforms, television and movies, and soon holographic and virtual reality devices. As useful as this is today, it is nothing compared to where it will be in a couple of years and then again in the years beyond that.

So, will your company just stay the course of today or will it adapt to the new reality of Hyperautomation-based evolution? Answering this question may be the most important strategic question most senior leaders will have had to address in the past 10 to 20 years.

Start your Hyper Automation and Transformation journey now. Think about what your assessments have provided and what action you should take. Take time to list major actions that should be taken for your organization's transformation and think how to take advantage of both Hyperautomation and Advanced Technologies.

Summary

Thank you for taking the time to go through the book and hopefully learn more about both Hyperautomation and Hyper Transformation. The rapid expansion of Hyperautomation tools and the innovations they are allowing is truly changing our world. There will be those who

share our vision of what is happening and where it is taking both business and society and those who disagree, being firmly planted in the past. Time will tell who is right.

The objective of any transformation is success – meaning that the new operation will be measurably better than the original operation and that the solution will move the company into a position where it can better compete and gain market share.

Other measures like failing to be delivered on time or in budget or meeting expectations are secondary to eventual success. But why are we giving excuses? The simple reason is related to the nature of Hyperautomation and Hyper Transformation and the promise of a flexible, rapid, low-risk operating environment. As mentioned, it is unlikely that the new, transformed business operation will work as initially envisioned. The constant release of new hyper automation capabilities and the continuous evolution of Advanced Technologies will need to be considered and advantageous new capabilities adopted, mid-stream in the transformation project. Adapting to these changes is a main reason that we recommend an evolution to a new business operation. Of course, this will have implications on expectations, budget, staffing, what is delivered, and how it will impact the company. This is the nature of a fluid business model and is one of the significant differences as companies become truly flexible.

It is also to be expected of a significant change where new concepts and approaches support new technology and new ways of using it. In many ways, this is a move to a new, flexible business model where many of the old ways need to be modified or replaced. That is the real challenge for executive management – much of what has worked well in the past is no longer relevant. Consequently, we are all going through a learning process as we evolve our thinking and our fundamental business operating beliefs.

This fact can be seen in how these transformations are approached. The foundation that is built during the startup of any transformation project is critical. From project rescues, we have found that the way the project starts and how comprehensive the prestart base may be is either a help or a hindrance to its success.

The keys to creating this transformation foundation has been shown in the Readiness Assessment, the fail point review, a self-assessment of the team's ability and company to succeed. We have also helped you look at the start, at the ideation point, and then moving through the approval to starting the project.

We have not gotten into detail on pre-start activity because the foundation that is built varies based on the company. However, this foundation should include:

- An agreed to scope that all participants and all affected by the transformation agrees to.

- An agreement of the roles that everyone will play.

- An agreement on "cooperative collaboration" and participation.

- Assignment of a realistic budget and time frame.

- Assignment of competent staff with the right skills and an agreed commitment of their time.

- Expectation definition.

- Leveraging the information from the assessment to change parts of an approach that have failed – learn from past mistakes.

- Selection of a Business Transformation method that combines the design hierarchy of a waterfall approach and the automation solution agile development method.

- The creation of a detailed project plan in a tool like Microsoft Project – the plan should be an evolution to the envisioned (possibly modified) business model identified in the business plan.

- A training plan that provides just-in-time training and builds both skills and competencies.

- A schedule and plan to acquire and deploy new Hyper Automation technologies that is aligned with the transformation evolution plan.

- An investment plan.

This list of foundation needs will need to be augmented by components that customize the project to allow it to be approached optimally in your company. This customization should, however, take into account the lessons learned from the past.

Planning beyond the startup should be based on the transformation methodology that you select and the hyper automation environment that your company creates.

We hope that this book has helped to frame your thinking about what is starting and how it will grow and evolve as more and more companies adopt the Hyper Transformation model.

We are excited about the possibilities these technologies offer for the future and we invite our readers to join us as we continue to help companies evolve and succeed in their switch to a Hyper Transformation evolution model. We have your contact information, and we will be holding ongoing webinars and round table discussions to share experiences and successes, as well as things that didn't work well. That is how we can grow as a community and as Transformation professionals. We have also provided our contact information and would welcome hearing from you.

Additional Resources to Ensure Your Success

Resources Available Through *My Career Transformation*

For additional information on all the topics discussed in this book, we have combed our archives and online offerings to provide free resources to explore further. We invite you to visit our website at www.mycareertransformation.com and compare the ideas in our papers, articles, and blogs to yours. And as members of the Transformation community, let us know how we can continue to evolve this discipline together.

Disruption

- **Business Disruption** and **Disruption and Business Transformation** explore how change has been replaced with massive disruptions. These papers explore the implications and how to address them before the chaos of the next disruption up-ends your organization.
- **Digital Agility and Resilience: Future Proofing Against Disruptive Events** an in-depth course with the latest methods and tools to future proof your technology footprint against disruption.
- **Disruptors** identified by Inc. for 2021 that are unfolding right now. Each will have different implications for your organization and the skills people will need to navigate the immediate future.
- **Starlink** an internet service from Elon Musk, at greater speed for everyone on the planet, regardless of where you live.
- **Project Kuiper** an internet service from Jeff Bezos, at greater speed for everyone on the planet, regardless of where you live.

Transformation

- **Business Transformation 2.0** whitepaper. For a deep dive into how Business Transformation is being planned, designed, and implemented, given the successes and lessons from the last three years.
- **How Business Paradigms Drive Transformation** provides an updated view of how businesses are transforming themselves by understanding and anticipating paradigm shifts.
- **Business Transformation: Executive Insights** provides leaders of change an updated understanding of how to successfully implement your Business Transformation.
- **Business Process Transformation** explores exactly how to build the next generation of business processes.
- **Build Your Capability Model** provides a hands-on guide which takes you step by step in building a capability model for your organization.

Leadership

- **Leadership Playbook** provides a curriculum that has been tailored for leaders and managers of people.
- **Re-Establish Employee Commitment** is a laser-focused course to build this capability.
- **Mobilize the Entire Workforce** a course to build team effectiveness by equipping them with tools to make change around them.
- **Advanced Business Analytics** provide the next generation of tools to create more adaptive business and operating models.
- **Dilbert** poked fun at a rigid annual strategic planning cycle. That was the world of yesterday.

Operating Models

- **Intelligent Composable Operating Models** allow organizations to dynamically adapt and fundamentally rearrange their structure based on the needs of change or disruption.
- **TOM: What is a Target Operating Model?** Identifies attributes of a TOM that should be considered as part of any transformation.
- **The Transformative Business Model** is discussed at length by the Harvard Business Review.
- **A Guide to Successful Operating Model Transformation** provides insights from both a leadership and transformation perspective.

Technology

- **Jim Sinur's Digital Topics for All blog** a great source of thought leadership that is independent of the big software and consulting firms.
- **Texas A&M** and **Northwestern** are pioneering learning programs in Artificial Intelligence Engineering.
- **Digital Transformation Comes Down to Talent** in 4 key areas discussed at length by the Harvard Business Review.
- **Business Transformation Field Guide** outlines specific hints and tips to ensure that your transformation is successful.

Hyperautomation

- **Tesla Leading Hyperautomation** with over 75% of their vehicles being built with Hyperautomation solutions including robotics, ML, and AI.

- Gartner Study "**Top Strategic Technology Trends for 2021: Hyperautomation**" the pandemic accelerated a default-is-digital requirement demanding digitized business and IT processes. IT leaders must recognize that Hyperautomation is pervasive and a mandate for achieving business outcomes.
- Pega Study "**What is Hyperautomation**" an integrated Digital Transformation approach which creates a backbone of automation tools that work together to transform business processes, delivering reliable, scalable outcomes.
- **Ford's Ever-Smarter Robots Are Speeding Up the Assembly Line** by leveraging advanced AI to make automation even more effective.
- **Worldwide Hyperautomation-Enabling Software Market** to reach nearly $600 billion by 2022 — Gartner.

My Career Transformation (MCT)" is a management consulting and training company focused on ensuring that organizations embarking on Business Transformation are successful. We are the leader in defining the discipline of Business Transformation and work hand in hand with clients on their transformation journey.

As the preeminent thought leaders, we have created a unique perspective on the discipline and continue to evolve our methodologies, frameworks, tools, and training programs as change and disruption continue to accelerate. At the core of Business Transformation, we have defined six essential aspects that work together to provide an integrated and successful approach to planning, designing, and implementing successful transformation.

Business Transformation Continuum – the discipline of Business Transformation continues to evolve as change and disruption accelerate.

Hyperautomation - digital solutions are re-imagining what products/solutions and products are possible while redefining how businesses operate.
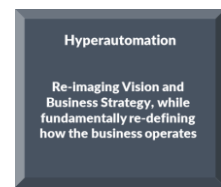

Disruption - awareness that internal and external conditions are subject to constant change and massive disruption.

Business Paradigms - businesses constantly evolve as the environment changes, innovation emerges, and values shift. Paradigms provide a mechanism to build new capabilities.

Dimensions of Transformation - together the four dimensions (Strategic, Operational, Organizational, and Digital Transformation) create an integrated Transformation agenda.

Architects of Transformation - six unique Architectural disciplines collaborate in the design, planning and implementation of Transformation.

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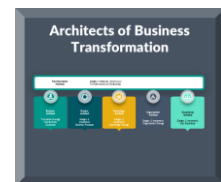
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Thank you for taking the time to read this book and to consider how our experience-based approaches to large scale business improvement and transformation may help you. We hope the information has been helpful and will allow you to improve the transformation efforts and the use of hyperautomation technologies in your company.

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