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# RE-IMAGINING IT

Digital Transformation in Health Sciences



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## RE-IMAGINING IT

- Digital Transformation in Health Sciences

The present master's thesis focuses on studying IT organization's digital transformation both on general level and PerkinElmer IT organizations' transformation using project management tools to reshape their current operation model. The objective is to study and learn how project management and its tools can assist on digital transformation and all different parts of that journey in IT organization and beyond.

Digital transformation has been here for decades and the need for that has not reduced, but the shape of it has. Currently the biggest need in organizational design, especially in IT, is to create an agile IT organization. In this case study organization, the request is to have an organization structure using agile methodologies and to create the capability to respond to business needs fast enough. The organization structure should be capable for continuous delivery throughout the cycles.

Case study company branded their digital transformation effort as Re-imagining IT and the focus was to create sustainable process flow from business intake to the continuous delivery through all different departments of IT organization. In the centre of this would be project portfolio management office which would act as a gatekeeper for all project related work in IT. On the same time, the IT departments would need to reshape their existing processes closer to agile methodology away from the common waterfall model to have the capability to be more responsive.

When the digital transformation starts, the first steps are clear from the high level. When the request is to implement all various functions to the strategy, it is not always that clear. After some analysis conducted to the matter, there are multiple datapoints in project management which would be able to help IT departments that would not be the obvious ones. In case study department, project management was combined with ITIL which lead to the digital transformation. Using these tools allowed the department to reshape its existence and create more value to the company. This department was observed for 12 months and after that there was a survey for the department employees. The survey's purpose was to understand the employee commitment and understanding to the transformation.

KEYWORDS:

Digital transformation, project portfolio management, project management

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## RE-IMAGINING IT

- Digital Transformation in Health Sciences

Tämän opinnäytetyön tavoitteena on tutkia IT organisaation digitaalista transformaatiota yleisesti ja erityisesti PerkinElmerin IT organisaation transformaatiota. Transformaation on tarkoitus käyttää hyväksi projektinhallinnan työkaluja ja johtamista muuttaakseen nykyistä toimintamalliaan. Tämän tutkimuksen tarkoituksena oppia ja tutkia, kuinka projektin johtaminen ja projektin johtamisen työkalut pystyvät auttamaan digitaalisessa transformaatioissa ja kuinka ne mahdollisesti auttavat transformation edetessä ja toiminnallisuudessa ITn eri osastoissa.

Digitaalinen transformaatio on ollut olemassa jo vuosikymmeniä. Sen tarpeellisuus ei ole muuttunut, mutta muoto kylläkin. Tällä hetkellä digitaalisesta transformaatiosta haetaan muun muassa organisaation mallinnusta. Usein varsinkin IT-osastot ovat kiinnostuneita luomaan ketterän toimintamallin. Tutkimusrytyn IT-osaston tavoitteena on luoda organisaatiomalli, joka käyttää hyödyksi ketteriä metodeja, joka loisi kyvykkyyden vastaamaan liiketoiminnan nopeasti kasvaviin tarpeisiin ja lisäksi organisaatiomalli kykenisi kestävään ja jatkuvaan toimittamiseen.

Tutkimusrytyn nimesi digitaalisen transformaationsa "Re-Imagining IT" -projektiksi ja tavoitteena oli luoda kestävä prosessivirtaus, alkaen liiketoiminnan pyynnöstä aina jatkuvaan toimittamiseen, käyden läpi kaikki ITn eri osastot. Kaiken tämän keskellä toimisi projektiportfolion hallintatoimisto, joka toimisi portinvartijana kaikkeen projektityöhön IT-organisaatioissa. Samalla IT-osastot muuntautuvat toimimaan ketterien kehitysmetodien mukaisesti, perinteisen vesiputousmallin sijaan, ollakseen reaktiivisempia liiketoiminnan vaateisiin.

Kun digitaalinen transformaatio alkaa, yleensä ensimmäiset ylemmän tason askeleet ovat selkeät ja ehkä jopa helpot ottaa. Kun oletus kuitenkin on implementoida uusi strategia koko organisaation kaikkiin osastoihin, askeleet eivät välttämättä ole enää niin selkeät. Tutkimuksen jälkeen löytyi kuitenkin useita risteämäkohtia projektin johtamisen työkaluista ja tutkimuskohteena olleen osaston IT-toiminnan kehittämiseen digitaalisen transformation reunaehtojen mukaisesti. Tutkimuskohteen IT-osaston transformaatio sidottiin ITIL-metodologiaan, jota vedettiin projektinomaisesti osaston omana strategiana. Tämä mahdollistaisi osaston uudelleen luoda itsensä ja tuoda lisäarvoa organisaatiolle. Kyseistä osastoa seurattiin 12 kuukautta. Seuranta jakso päättyi kyselyyn, jossa haluttiin analysoida osaston työntekijöiden sitoutuneisuus ja ymmärrys transformation ympärillä.

ASIASANAT:

Digitaalinen transformaatio, projektisalkun hallinta, projektinjohto

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### LIST OF ABBREVIATIONS

Abbreviation	Explanation of abbreviation
AD	Active Directory
BP	Business Partner
BRM	Business Relationship Manager
CDO	Chief Digitalization Officer
CEO	Chief Executive Officer
CHRO	Chief Human Resources Officer

CIO	Chief Information Officer
CMO	Chief Marketing Officer
CTO	Chief Technical Officer
GITSC	Global Information Technology Service Center
GPO	Group Policy Object
IT	Information Technology
ITIL	Information Technology Infrastructure Library
ITSC	Information Technology Service Center
ITSLT	Information Technology Senior Leadership
LOB	Leader Of Business
OGC	Office of Government Commerce
OU	Organization Unit
PBO	Project Based Organization
PMI	Project Management Institute
PMO	Project Management Office
PPMO	Project Portfolio Management Office
SME	Subject Matter Expert
SOP	Standard Operating Procedure
VMO	Vendor Management Office
WBS	Work Breakdown Structure

# 1 INTRODUCTION

Digital transformation starts to be crucial for all businesses. Regardless of the size of the business, digital transformation should be addressed in some shape or form. That message is heard loud and clear from all channels, webinars, articles or study related to how businesses can remain competitive and relevant as the world is shaped to be digital. What's not clear to many of us is what digital transformation is? Is it just a way to say moving to the cloud? What are the specific steps we need to take? Do we need to design new jobs to help us create a framework for digital transformation, or hire a consulting service? What parts of our strategy need to change? Is it really worth it?

What does all of this do to the many organizations inside the company or a department inside organization? IT organizations in every business are getting pressure to do digital transformation to support business better and faster. Digital transformation as a term is very widely used and for that reason it might be hard to define what does business require from the IT organization. How to create an agile structure to support business in every change, but still create structure for stability? Most IT organizations and others as well, look for the answer from project management office (PMO).

In the next chapters are presented PerkinElmer Inc company and reviewed the background and structure of the thesis.

## 1.1 PerkinElmer Inc and background for the study

PerkinElmer, Inc., previously styled Perkin-Elmer, is an American global corporation focused in the business areas of diagnostics, life science research, food, environmental and industrial testing. Its capabilities include detection, imaging, informatics, and service. PerkinElmer produces analytical instruments, genetic testing and diagnostic tools, medical imaging components, software, instruments, and consumables for multiple end markets. PerkinElmer is part of the S&P 500 Index and operates in 190 countries. PerkinElmer has big presence in Turku, Finland. Wallac Oy, located in Turku, is part of PerkinElmer company and is the largest manufacturing site for PerkinElmer (PerkinElmer 2020).

Last year, 35 million babies in over 90 countries were screened using PerkinElmer tests, saving the lives of more than 70 babies each day on average. More than 650 million babies have been tested for life-threatening diseases using PerkinElmer's newborn screening tools. Each year, 220 million tons of wheat are analysed for quality by PerkinElmer instruments. PerkinElmer technologies can also detect food fraud in under 30 seconds. PerkinElmer instruments test 289 billion gallons of water annually, to provide safe drinking water for more than 1 billion people and help reduce 8 million metric tons of plastic waste from our oceans. (PerkinElmer 2020)

PerkinElmer Inc. started its digital transformation journey in 2018. PerkinElmer CIO announced Re-Imagining IT -effort to tackle the need for the transformation as IT organization. In brief, the goal of this effort was to re-imagine how we, in IT, are organized and functioning as this is critical to our success. At the time of fast-paced business and technological change, business needs faster response time to address the technical requests. Our IT organization should develop an intimate and in-depth understanding of our work, our value both today and its evolution to support the future, and our relationships within IT and with our business partners. It is this understanding that allows us to take an honest and thoughtful look at how we must evolve and grow.

## 1.2 Research problem and objectives

The research problem in question can be framed as follows: "How could IT better understand and manage digital transformation?"

This comes to the methods and means for IT as an organization to manage the needed change in their own way of functioning. Usually the subject of digital transformation addresses the business as a whole, but in this research, I am trying to drill deeper for the concept and what does this mean for IT organization inside the business and even further. This leads us to the actual research questions:

1. What does digital transformation mean for IT organization?
2. How could project-based approach help with challenges around digital transformation in IT?
3. How could IT operations department tackle the digital transformation challenges using project management?
4. What kind of methodologies and structures there is to help?



### 1.3 Structure

This thesis will begin by defining digital transformation in general in business and in an IT organization. I will review the importance of the digital transformation and how an IT organization needs to transform with it to be able to serve the business.

After digital transformation literature chapter, thesis will move to chapter that is more in-depth around changes in the organization and management. These changes might be needed to consider securing successful transformation. Chapter 3 starts with a possible concept of Re-imagining IT effort and possible workflow how digital transformation could be managed and prioritized through out the IT organization.

Chapter 4 contains the case study on the organization where the Chapter 3 concept has been introduced. Case study focuses on one department in the IT organization which is going through the digital transformation. Chapter 5 is presenting the results of the case study. How this specific department has done around the digital transformation and how does the department employees see the progress after 12 months of the change?

Last chapter is conclusions and personal observations around global organizations keys of success in IT organizations digital transformation. The thesis is a combination of literary research and applying the theories in to practice.

## 2 DIGITAL TRANSFORMATION LITERATURE

In this chapter, digital transformation is reviewed generally. Concept and definition of digital transformation, and what are aimed to receive when utilizing digital transformation in organization, will be explained. Digital transformation importance for IT organization is studied, as well as the connection between the implementation strategy and change required in IT organization.

### 2.1 Digital transformation as a concept

The digital transformation of enterprises does not date from yesterday. It can be dated back to the 1960s with the release of completely new mainframe computers. In the years that followed this innovation, administrations and enterprises have begun to develop programs within these environments to automate a certain number of activities, such as accounting, payroll and inventory management, with significant gains in productivity. In recent decades, information systems have become a major lever of evolution and transformation of enterprises and businesses. Under proper control, they can bring decisive competitive advantages, and when poorly controlled they be a burden, or even an obstacle for the development of an enterprise. Governance is a decision-making process that is intended to ensure that information systems contribute effectively to the strategy of the company in a context of major changes: globalization, increasingly stringent regulations and continuous innovation in digital technology. Digital technology is a typical as such, because it can be both a vehicle for change when it challenges the competitive environment or the behavior of customers, and a response to change. Ultimately, digital transformation is automating more of operations, generating revenue-leveraging digital capabilities, and bringing new ways of doing and value to customers. For businesses, it requires a thorough review of everything it does currently, because digital disruption enables new product offerings and competition from nontraditional sources (Sacolick 2017). I'd like to add to this list that digital transformation for me is to change the current way of working by using methods that digitalization offers. It's all about the change and using the current technology offering combined by the business processes.

Westerman et al. (2011, 5) define digital transformation as "the use of technology to radically improve performance or reach of enterprises". Another definition for the term is

that "digital transformation can be understood as the changes that digital technology causes or influences in all aspects of human life" (Kaplan et al. 2006, 689). Westerman et al. (2014, 74) summarizes "Digital transformation marks a radical rethinking of how an organization uses technology, people and processes to fundamentally change business performance." Way I see digital transformation is a way to describe change in organization. In 21st century almost everything is already related to digital in some shape or form which leaves us with the constant change. Change is constant as the digital world is evolving every day.

Digital transformation is the cultural, organizational and operational change of an organization, industry or ecosystem through a smart integration of digital technologies, processes and competencies across all levels and functions in a staged way. Digital transformation leverages technologies to create value for various stakeholders, innovate and adapt to changing circumstances. While digital transformation is predominantly used in a business context, it also impacts other organizations such as governments, public sector agencies and organizations which are involved in tackling other challenges such as pollution and aging populations by leveraging these existing and emerging technologies. Digital transformation is probably not the best term to describe the realities it covers. Some prefer to use the term digital business transformation, which is more in line with the business aspect. However, as an umbrella term, digital transformation is also used for changes in meanings that are not about business in the strict sense but about evolutions and changes in, for instance, government and society, regulations and economic conditions on top of the challenges posed by so called disruptive newcomers (I-Scoop 2020). What this article fails to tell is the mindshift that the employees need to go through in the process. In most cases things has been done in the same way for several years or more. When the transformation is done there needs to be a shift in minds as well to accept the change and embrace it.

## 2.2 Digital transformation challenges for organizations

Deiser (2018, 9) defines digital transformation as follows "There are some features that make the digital transformation challenge unique and suggest it won't go away any time soon:

- It's universal. It is virtually impossible to escape the digital context that shapes the business realities of the early 21st century. Companies must deal with it or

they will perish. Strategic innovation is not a matter of choice anymore. It has become a sine qua non and does not automatically guarantee competitive advantage or even just survival.

- It's big. In its significance and scale, the ubiquitous digitalization is comparable to the most disruptive innovations in the history of mankind, such as the discovery of fire, the invention of the wheel, the invention of mechanical tools, the steam engine, or electricity.
- It's fast and gets faster. The development of digital technology is inherently exponential, convincingly illustrated by Moore's law or the principle of Machine Learning. Organizations – especially if they are large and complex - face an almost impossible task of keeping pace with opening opportunity spaces that are exploited by new entrants that don't have to carry legacy baggage.
- It's rewriting the laws of competition. Digital technologies enable novel business models and ways of value creation that defy traditional competitive dynamics. The logic of platforms, marketplaces, or agents – to name a few - favors a winner-takes-it-all paradigm which rewards few and resists conventional regulation. This creates a widening gap between the few owners of the digital space and the many who must give in to less powerful business models. A great example is the automotive industry where car manufacturers may soon be forced into the role of mere hardware providers, while the owners of digital networks, platforms and data houses may capture the bulk of the value.
- It's reshaping society. The nature of technologies such as blockchain, social media, AI, cloud computing, big data analytics, etc. require a new kind of institutional infrastructure that can deal with the – often unintended and not fully understood – consequences of digitalization. The discussion about privacy, cyber security, the future of humanity or the future of work are an indication of the kind of societal challenges we need to address. It will take time to create an institutional context for the digital economy, and it is likely to uproot our political and economic system which, after all, is a heritage of the industrial age.”

These features of digital transformation will continue to challenge the organizations now and in the future. As digital age will continue to grow and change exponentially in the

future, I don't see the transformation end anytime soon if not ever. As mentioned earlier, the theory has existed from the 1960's already but the shape of the transition has been evolving ever since.

If you're a Chief Information Officer (CIO), Chief Technology Officer (CTO), Chief Digital (or Data) Officer (CDO), Chief Marketing Officer (CMO), Chief Strategy Officer, product management leader, or technology leader, then you already know that the technological landscape has changed tremendously over the last several years. There's been innovation that new low-asset, technology-driven, subscription "digital" businesses have successfully entered the market and are competing with older businesses. If you aren't facing digital competitors yet, then maybe your marketing department needs new approaches to interact with prospects digitally and requires technology, data, and skills to compete for market share. Customers are also changing and now they expect digitally immersive experiences with simple and consistent experiences across devices. Customers are expecting benefits when buying new products and services created by the integration of physical, personal, and social experiences (Sacolick 2017).

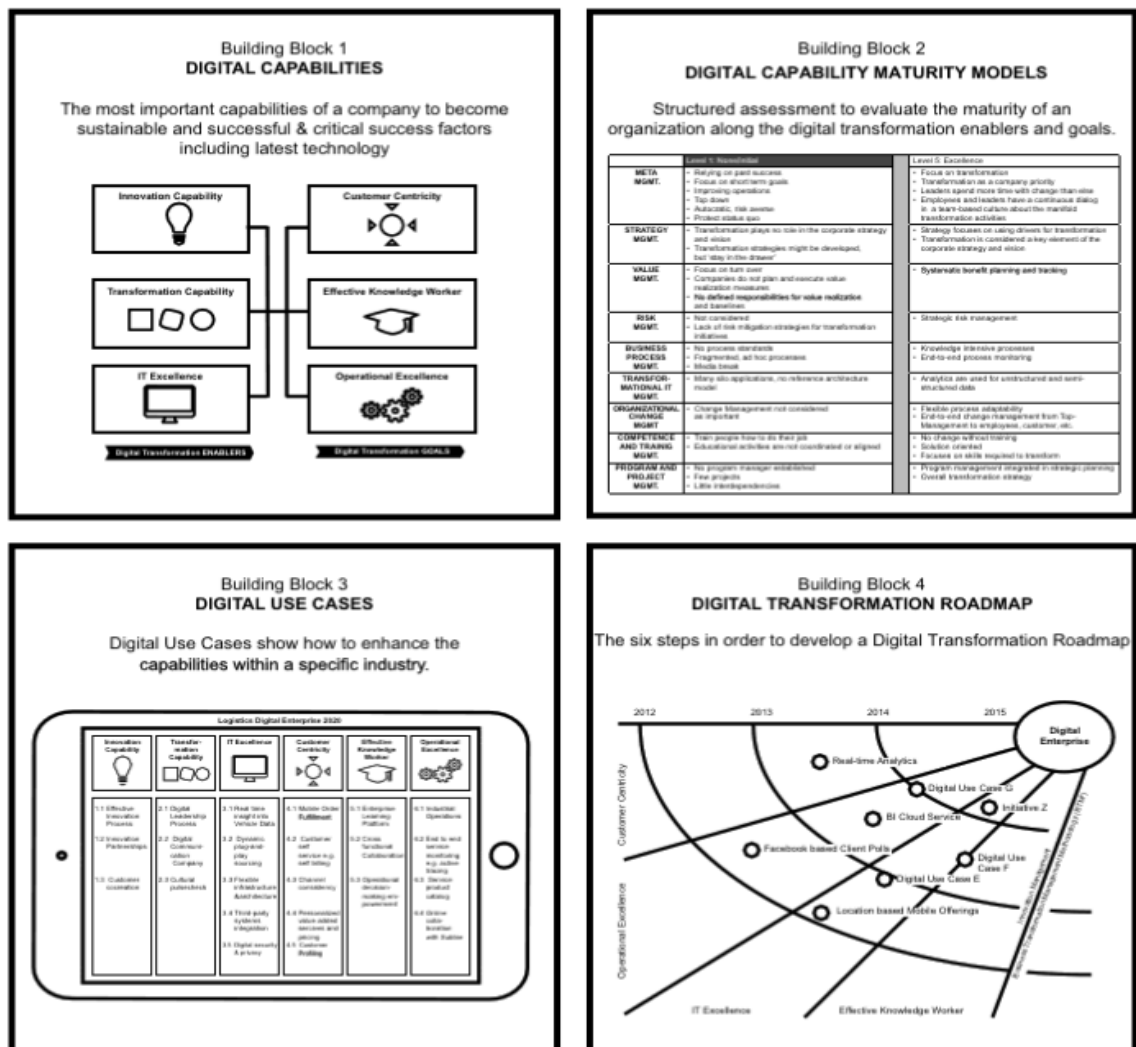
Meffert et al. (2018, 44-49) states "How dangerous is the current situation? How far-reaching are the necessary changes in the company? What is stopping the transformation? What strengths should we build on? And where will the journey take us? Answering the fifteen questions on these five topics (Picture 1) will give you a good sense of where your company stands and how it needs to move forward."

<b>Sense of urgency</b>	1 Have we identified the threats and potentials of digitization?	2 Have we engaged in frank and honest stocktaking?	3 Have we experienced digitization at first hand?
<b>Type of change</b>	4 Can our current business survive in the digital world?	5 Are targeted interventions enough?	6 Do we have the new talent for the digital change?
<b>Barriers to change</b>	7 Are owners, employees, and managers suffering extreme stress?	8 Are the best and most successful managers supporting the change?	9 Are our organizational silos standing in the way of change?
<b>Relevant assets</b>	10 What are our key assets — customers, products, technologies?	11 Which of these assets are still relevant in the digital age?	12 How can we successfully transform these assets for the digital age?
<b>Ambition</b>	13 Is the CEO personally driving change?	14 How high should we aim, and how fast should we act?	15 Are our employees on board?

Picture 1 Digital transformation questions (Meffert et al. 2018)

Every company can transform itself into a digital enterprise. This digital transformation process requires certain skills and abilities in order to succeed. Maybe some companies and the employees are capable more than others, but important skills and abilities can be taught for all. The success depends on the combination of the individual components,

the strategy and complete view of the transformation process. The digital capability framework should be used as a toolset that enables companies to analyze the current situation and to identify new business cases which could be enabled by new technology trends (Uhl and Gollenia 2016). When we start talking about capabilities and skills inside the organization to enhance or speed up the transformation, I believe we are forgetting the most important piece which is the communication amongst all stakeholders and their teams. If you don't get buy-in to the transformation from everyone, the skills and capabilities do not really mean anything if the organization is lacking on motivation. I am not stating that skills and better capabilities are not important for the transformation. Just that the employee, or should I say human being, is still in the key role for success.



Picture 2 The four building blocks of the Digital Capability Framework (Uhl and Gollenia 2016)

### 2.3 IT and seat at the business table

After Starbucks stock price halved in 2009, Starbucks knew it was time for change. Against the backdrop of the increasing impacts of new digital technologies on customer relationships and corporate success, Starbucks hired Adam Brotman as its chief digital officer. Brotman started by offering free Wi-Fi and free digital content in Starbucks stores. By cutting 10s from every card or mobile phone transaction, Starbucks reduced time-in-line by 900,000h from the total process. It also added mobile payment processing to its stores, processing three million mobile payments a week. Starbucks used new technologies, such as social media or mobile, to innovate customer relationships, operations, and its business model, which boosted its performance (Fitzgerald et al. 2014). This is a good example which is most likely one of the reasons why Hess et al. (2016) states “In times of increasing technological change, companies across various industries have begun to recognize the range of opportunities offered by new digital technologies. Examples include Starbucks as well as companies from other industries, such as the media company ProSiebenSat1, which actively looked for digitally enabled business models to diversify its business scope.”

Schwartz (2017) also states “Saying that “the business is IT’s customer, and the customer is always right” seems like a good idea...but over the long term, this value trap sets up the IT unit for failure because customers are often wrong (especially about matters in which they are not experts), and calling colleagues “customers” puts a wedge between IT and the rest of the business.” This message is enforced with Tzuo (2018) “Ownership is dead. Access is the new imperative. IDC, market intelligent company, predicts that by 2020, 50 percent of the world’s largest enterprises will see most of their business depend on their ability to create digitally enhanced products, services, and experiences.”

CIOs must have a seat at the table to help drive enterprise strategy and develop strategies for harnessing technology for competitive advantage and new growth opportunities. This is quite big change in roles from the days when the CIO spent the majority of his or her time focused on guiding technology investments and driving operational efficiency in the enterprise. But as business has become increasingly digital in recent years, importance of the CIO’s role in driving enterprise strategy has exponentially increased and will continue to become more essential (Tolliver 2018). Sacolick (2017) challenges the IT leaders by stating “Defining digital business, a digital

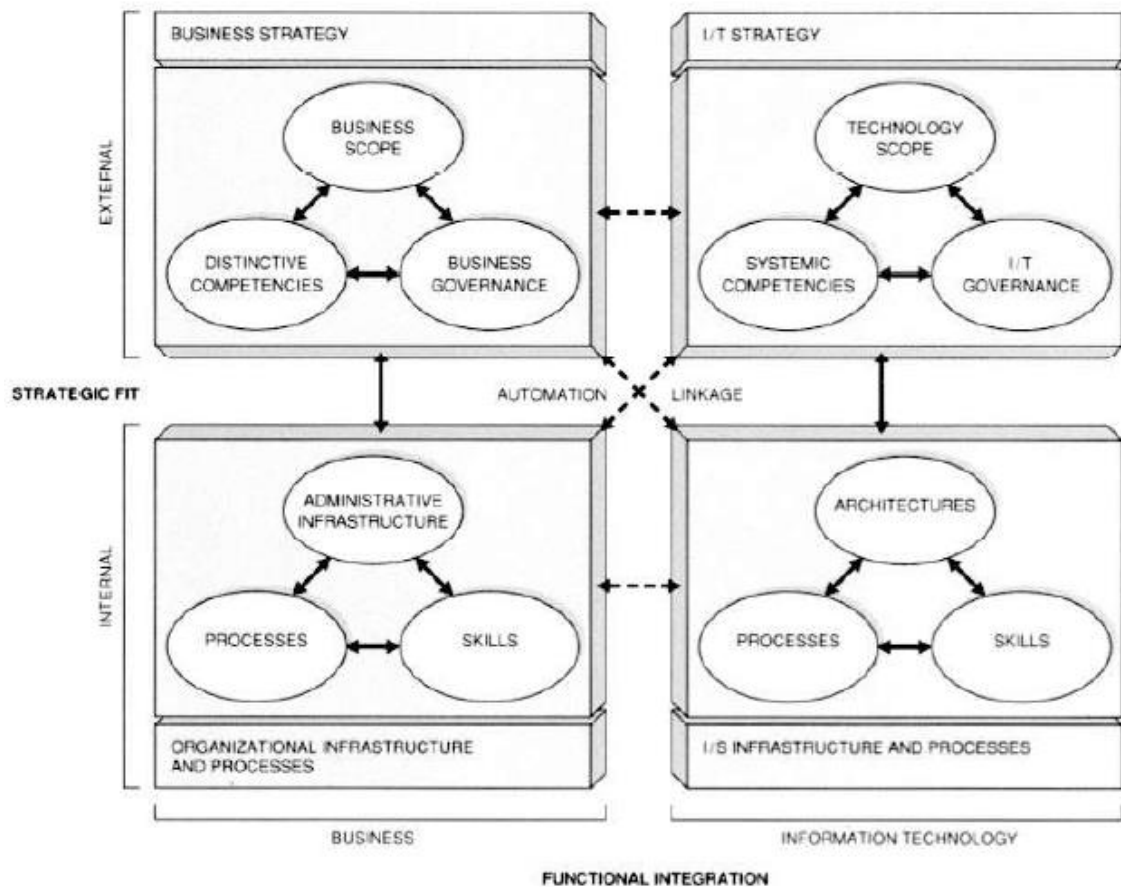
strategy, or the vision behind a digital transformation is an important exercise to take on in order to ensure a shared vision among executives. They must reflect on what's driving digital opportunities, the impact of new competitors, and the aggregate risks to legacy businesses. A transformation charter needs to be defined, and there are various approaches to bringing executives together to align, define, and document a strategic vision. But the question I ask is whether you have a seat at the table when strategic planning efforts focus on digital strategy and transformation. In fact, if digital is not on the agenda for strategic planning, do you have sufficient clout and executive relationships to make sure it's added to the agenda?"

As the businesses are looking for to take advantage of the constant evolving digital landscape, who would be better to help in that than IT organization. In late 90's and still in early 21st century, there was a trend where IT organizations were necessary evil which basically just consumed money rather than enabled the company for more revenue. I would state that in this modern digital transformation IT needs to have a voice in the table as IT could and should be bridge to digitalization. Also, most of the bigger companies have so much IT legacy already where IT can navigate to the best suitable option what is offered. I would like to see IT organizations in the future as enablers for the new business opportunities and revenue sources. Other point of view is that in history, IT was hired to address internal IT needs and issues. At the edge of digital transformation, so called internal IT has grown out of its current cubicle to business helping advocate. We as IT are expected to solve real business cases, troubleshoot customer facing issues and provide guidance and best practices how to build our technology to the customers environment.

## 2.4 Business-IT Alignment

Henderson & Venkatraman (1993) define business-IT alignment as follows: "The degree of fit and integration between business strategy, IT strategy, business infrastructure, and IT infrastructure." This concept has been modernized in 21st century.





Picture 3 The strategic alignment model (Henderson and Venkatraman 1993)

Who leads digital transformation, exactly? Business management consultancy Altimeter reported in 2016 that chief marketing officers most often led digital transformation, followed by CIOs and CTOs. In the past four years, the number of companies with a chief data officer role has quadrupled, underscoring the vital importance of data collection and strategy. CHROs are also important partners, leading employee engagement and ensuring that diverse teams are well supported, as well as working with IT on infrastructure and internal communication (Cyca 2018).

Tolliver (2018) refers "In today's enterprise, digital transformation has become everybody's business, particularly the CIO's. That's because CIOs have a unique vantage point to see across the entire enterprise and are already change agents due to their experience of evolving IT capabilities each time technology changes. CIOs also have at hand an incredible amount of technology and data to help advance business initiatives and quickly take advantage of new opportunities. When LOB execs want to

accelerate digital transformation in their organizations, they should look to IT execs to provide the technology roadmap and strategy to support business innovation. To be an effective CIO in today's business environment, it's not enough to just be a technologist. You need to combine the power of your knowledge of information technology capabilities with a deep understanding of the business, customers, and markets where your company competes." Soumik (2019) adds "Businesses understand that digital transformation is critical to their success, and it's one challenge that needs the co-operation of both IT and business leaders. If they're not aligned and working hand-in-hand, organizations struggle to climb the digital maturity curve despite their best efforts. Digital transformation is a resource heavy pursuit, and for organizations that want to make the most of their investments, making sure that IT and business leaders collaborate and craft the digital agenda and priorities is critical." I would like to enforce the part that business and IT needs to work hand-in-hand as in some companies this is seen so that business states what IT should be doing. This kind of approach is not going to produce sustainable environment in the longer run. IT most likely has maintenance tasks and other duties to keep "lights on" and if business mandates the tasks for IT, these maintenance tasks are not going to be completed which could end up as a legacy IT foundation where is very hard to build any new modern capabilities.

(Narayan 2015) states that "IT is commonly blamed for failing to meet the expectations of business. However, business also has a big role to playing the success of IT efforts. As much as IT needs to align with the business, business needs to align with IT's execution model. Business stakeholders has to realize the value of iterative development and the concept of a minimum viable/marketable product that can be iterated upon towards greater sophistication. They can be helped in this journey by business-savvy IT role called an IT business partner." Narayan (2015) has created very thorough vision and structure around IT digital transformation which gives guidance for these efforts.

Topinka (2014) introduces "IT business partner – These are people who help:

- Align IT with Business
- Align business with IT's execution model
- Champion the value of IT to business and ultimately obtain for IT a seat at the business strategy table"

He points out that several companies already have people in this capacity with varying titles such as business relationship manager, IT liaison, client executive manager or even senior business analyst. They report to IT leadership.

For BRMs as to business representatives it is very important to know where they can get the information that they need. It would be hard to imagine that these BRMs understand every bit and piece of the new technology or request they are receiving. What I mean is that especially in medium or large business it's not always obvious who to turn to in every case what is proposed. Stakeholders need to be found from the organization. Preferably organization could hold a matrix where to point specific questions depending on technology. If we turn this thought other way around. How does a business stakeholder know where to contact in need? There are several occasions and examples where an employee has not known the correct place or person to address his request and he has started to act on it on his own, Accidentally this might expose the company to unnecessary risks and this is called shadow IT in general.

### 3 RE-IMAGINING IT

Organizational change occurs when a company makes a transition from its current state to a desired future state. Managing organizational change is the process of planning and implementing change in organizations in a way to minimize employee resistance and cost to the organization while simultaneously maximizing the effect of the change effort. Digital business transformation is the integration of new digital technologies into all business areas, leading to a complete change in the way the organization works (Schwertner 2017, 388-393).

The beginning of the transformation for the case study company was the 3<sup>rd</sup> of August 2018 when global IT reorganization was announced by the PerkinElmer Inc. CIO, following by announcement on the 17<sup>th</sup> of August 2018:

“For many years the decision-making process used to determine where IT dedicates funding, resources, and leadership attention has been informal and relationship-based. This led to over promising and not enough concrete results. Additionally, Global IT was not necessarily focused on the projects that represented the top business priorities for PerkinElmer-as-a-whole. With the support of the Senior Leadership Team and in partnership with business leaders across PerkinElmer, we have launched a new company-wide, business-driven IT investment and project prioritization process. This process is supported by three critical roles:

IT Business Partner. This role will ensure better business engagement and technology solutions to advance your business strategies. Effective immediately, IT Business Partners will be your first stop for projects with a technology component. Your IT Business Partner will review the new process for project intake and prioritization with you and will guide you through the process. Please see below the list of Business Partners and their aligned functions or businesses.

IT Project Steering Committee. This group consists of representatives across PerkinElmer’s functions and businesses. The IT Steering Committee has been chartered, and its members chosen, to bring an enterprise mindset to decisions about allocating resources and funding towards technology. They will consider how proposed projects align with PerkinElmer’s strategies overall and determine the relative priority of each proposal. Please see below for the list of IT Project Steering Committee members and the businesses and function they represent.

Additionally, IT Business Partners and the IT Project Steering Committee will look to identify common needs across business and functions to increase the delivered value of projects as a whole and look to reduce the complexity of our technology landscape.

IT Portfolio Management. As I mentioned in the organizational announcement, PM Director leads our IT Portfolio Management function and has been focused on establishing, facilitating, and overseeing this new company-wide business-driven IT investment and project prioritization process. Her first focus has been defining the new process and getting the IT Project Steering Committee up and running.

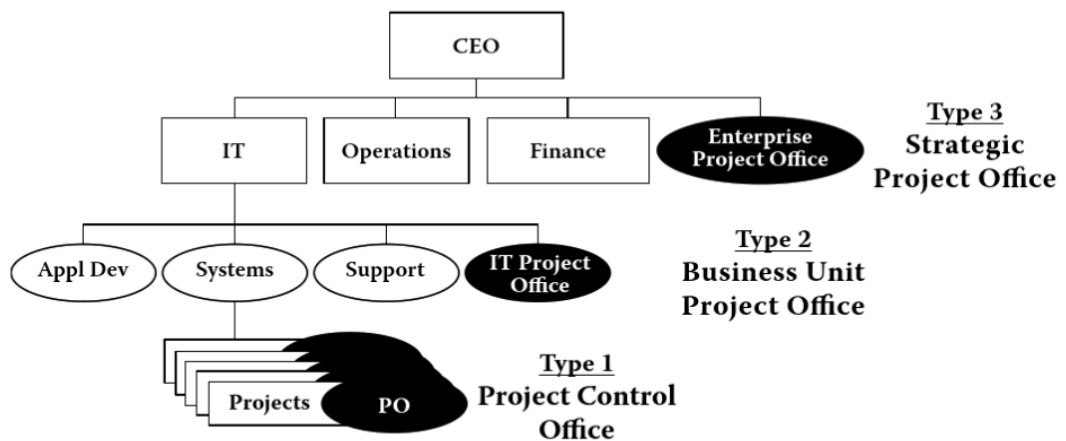
We recognize that this is a big shift in approach for IT investments and project decision-making. Your IT Business Partner is ready to answer any questions you may have. If you have business objectives that depend on new business capabilities and technology, or have already started investigating technology, including purchasing new software, I ask that you engage your IT Business Partner.

We are excited about this new process and look forward to your participation in it. Transparency and a more rigorous approach to prioritization and execution of our IT investments will better enable your success.”

As Gainey (2019) describes this was the beginning of the climb - “We often think of digital transformation as one single leap. You spend a little time planning, then you get ready, get set, and JUMP! That mental image can seem daunting to business leaders. Who has the time and resources to gamble on one big bet? Fortunately, that’s not how it works. Digital transformation is more like a climb, it’s an ongoing journey with multiple incremental steps. And while the path may be steep, the return on investment is worth it. Compared to legacy companies, transformed businesses are more agile, more efficient, go to market quicker, and bring in more revenue.”

### 3.1 IT organization’s portfolio management

In the old matrix organization, if a project was lucky to have a project office, it was usually nothing more than a “war room” with some gantt charts on the walls and perhaps a scheduler or two, people gifted with the ability to run the project management scheduling software of the day. This simple, single-project control office is what are called Type 1 project office (Picture 4).



Picture 4 Three types of PMO. (Crawford 2010)

A Type 2, or department-level, PMO may provide support for individual projects, but its main challenge is to integrate many projects of varying sizes within a division such as information technology, from small, short-term plans to multimonth or multiyear projects that require dozens of resources and complex technologies. With a Type 2 PMO, an organization can, integrate resources effectively because it's at the organizational level that resource control begins to play a much higher-value role in a project management system.

For an organization without any repeatable processes in place, such as most software development organizations, which are at the first, or initial, level on the software engineering institute's capability maturity model, 4 these types of PMO organization are beneficial. At the individual project level (Type 1), applying the discipline of project management creates significant value to the project because it begins to define basic processes that can later be applied to other projects within the organization. At Type 2 and higher, the PMO not only focuses on project success, but also migrates processes to other projects and divisions, thus providing a much higher level of efficiency in managing resources across projects. A Type 2 PMO allows an organization to determine when resource shortages exist and to have enough information at their fingertips to make decisions on whether to hire or contract additional resources. Type 3 Strategic PMO applies processes, resource management, prioritization, and systems thinking across the entire organization. The development of each of these types of project infrastructure provides a significant benefit to process maturity (Crawford 2010).

Project-Based Organizations (PBO) conduct most of their activities as projects. They are growing as a serious trend, but many organizations still do not understand how to structure their business to create a strategic advantage from projects. PBOs need to be structured to create synergy between strategy, project, program and portfolio management and the project approach needs to both generate value for the stakeholders and be sustainable (Thiry 2008, 12-16).

For the case study organization, the approach was to intake all new work from business as projects. This way the business request would be prioritized and given the necessary resources with the visibility to the whole organization. As the Picture 5 presents the high-level working model for these projects, accompanied by the PerkinElmer CIOs announcement:

“I recently sent a note to key leaders across PerkinElmer leadership regarding a key part of our Re-Imagined IT operating model – the intake and prioritization of IT investments driven by the business. The message is copied below. I want to convey what this message was, and what it means for everyone across IT.

First, a little setup. One of the drivers for Re-Imagining IT was the recognition that we as an organization were working extremely hard, and producing a lot of value, but we also felt unfocused and at times overburdened with demand from the business that could seem endless, unmanageable, and unprioritized.

We, as IT associates, also could feel that we were in a difficult position when we were asked by the business to start new work (projects, enhancements) when we already had a full plate. This changes now.

Specifically, I have told all senior leaders at PerkinElmer that our IT business partner functions will be the first place to go for all business projects with a technology component. While this seems like a straightforward statement, I have high expectations for what this means for you as IT associates.

First, effective immediately, no IT work for new business projects can start prior to review by IT business partners.

If you are asked by our colleagues in the business to do IT work on new projects, please ask your manager if it has been reviewed by your IT business partner. If the answer is no, then that work should not be started. Note for members of the IT Operations Team

– this will not apply to “IT for IT” work at this time (e.g., infrastructure support & maintenance).

Now for the expected benefits to you as IT associates. It’s my expectation that my partnership with the senior leadership team to put laser focus on “upstream” discipline regarding new project work will yield greater focus, work/life balance, and productivity in IT. With control over the new projects we take on, and clearer priorities, work can be sequenced appropriately considering resource capacity and “doability”. It is also my expectation is that the upstream discipline of review of requests through a single process will yield fewer “one off” projects and more re-use and sharing of technology that can meet shared business needs.

In the upcoming months, I will be looking to you to tell me if my expectations are being met. If they are not, then we will course correct. But my leadership team and I believe strongly in the changes we are making, and the resulting benefits that will be experienced by IT associates.

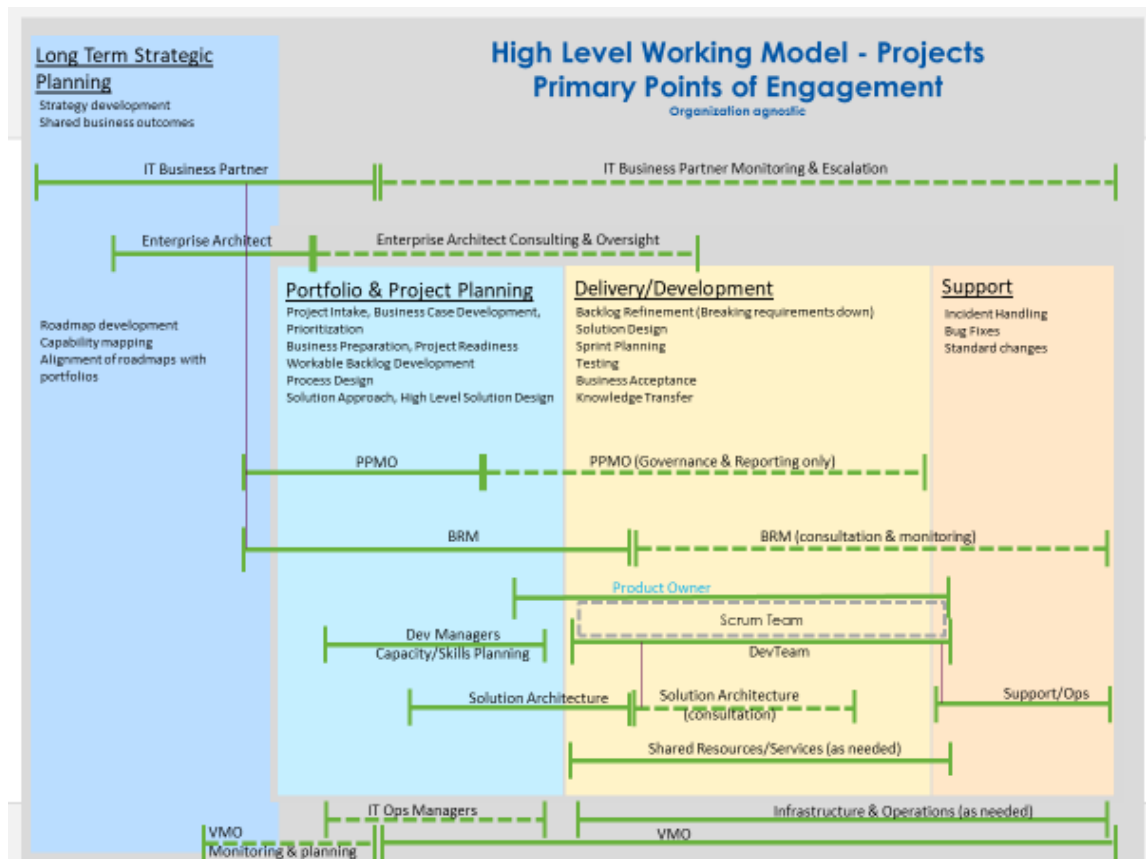
Please note that we will also be measuring workload periodically, like what we did last year with our IT Capacity Survey. We are not doing this to monitor you – I already know the many hours we all work to support operations and projects. Instead, we want to understand if our operating model changes are producing the focus and work/life balance improvements we expect.

I want to be clear about what we have not yet addressed across all global IT. Enhancement and break/fix requests often put IT associates in awkward positions where they must make business priority decisions in deciding what they will work on. We still have work to do as a company in managing the intake, prioritization, and sequencing of these requests.

You have my commitment that we will tackle this next. In fact, doing so is core to our journey toward Agile – where managing backlog of enhancement and break/fix requests is foundational to maximizing IT business value.

Please let your managers know what questions you have about this change for project intake driven by our Reimagined IT operating model. Also, look for more dialogue on this important change to our operating model in our next set of change facilitator huddles. Your feedback has been, and will continue to be, important for Re-imagining IT. Finally, below is a list of IT business partners (Picture 6).”





Picture 5 High Level Working Model (Keil 2018)

On picture 5 the left blue box represents that the business partners will work closely with the business leaders and managers to understand their long-term strategic priorities and future capability needs to drive business growth. Long-term should eventually be a multi-year view. This would eventually lead to a longer-term capabilities' roadmap. The Business partners will work with the enterprise architect to evaluate how the business capability roadmap will impact our technical landscape. This would help in building the roadmap of technology for the business.

The green box represents the portfolio and project planning activities, specifically, work that happens prior to a project being assigned to a development team. Many functions contribute to this planning work. This BRMs would work with the business to first create a project overview and a business case for the project in order for the project to be prioritized. Once the project is prioritized, they will work with the business representatives to define the project requirements at a more detailed level in preparation for the

development team. They would also be involved in providing inputs and monitoring the project during the process of its implementation.

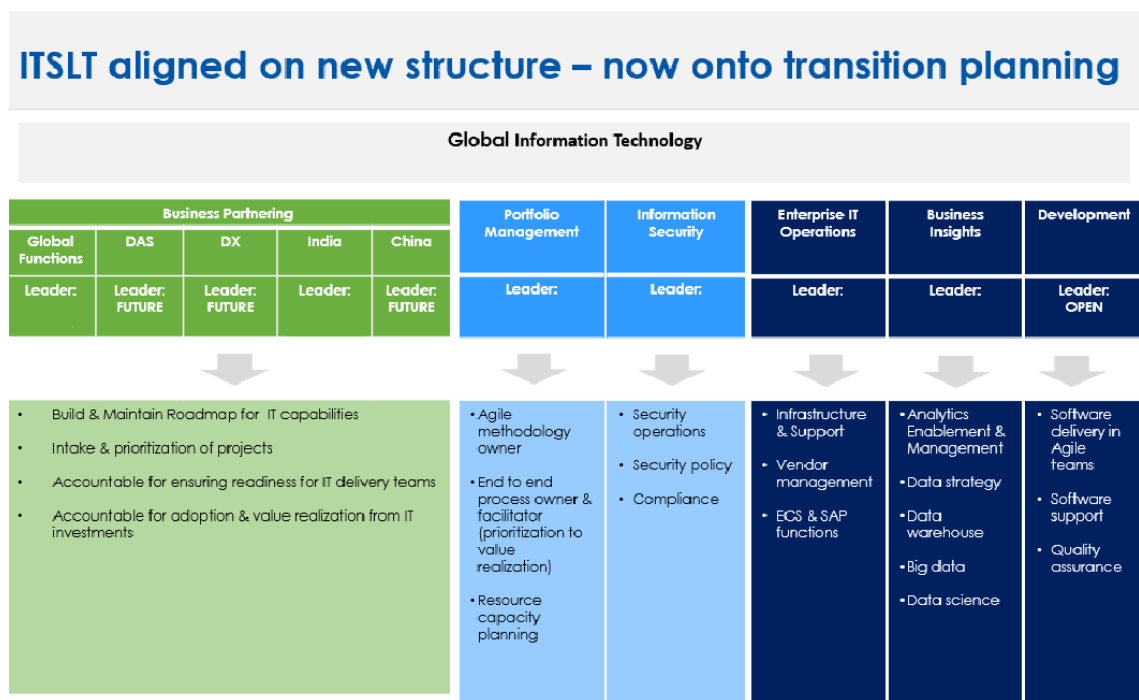
The PPMO function will facilitate prioritization of the projects from all business partner functions. The PPMO will set standard inputs, outputs, and communication for the intake, prioritization, and criteria for a project to begin and monitor intake and planning processes. They would also help in building a pipeline for the projects. The development managers would work upon the capacity planning for the prioritized projects ensuring that teams are staffed with the appropriate skills and capacity to ensure successful delivery. The solution architect group along with BRMs will work closely to outline the solution approach and the high-level solution design. The VMO and the IT operation teams would monitor the pipeline and be engaged at the very beginning of projects that need their support to ensure alignments of the teams.

The delivery and development stage represent the project implementation. The PPMO group would focus on project governance and reporting the metrics for the project. In a mature agile state, the product owner is responsible for breaking down the project requirements/ user stories into lower level detailed stories (smaller) and prioritizing them for the team. In earlier stages of maturity, the BRM will likely act as a product owner delegate on behalf of the business to ensure requirements are broken down into detail level stories. It will take time to develop product owners for each business. Ultimately, it is the BRM's responsibility to ensure stories are ready for the team.

The development managers monitor progress of the team, take action to ensure the team's success such as removing roadblocks like missing skills to the team, addressing challenges within and outside the team. Scrum masters facilitate scrum planning, daily standups, and other standard agile ceremonies with the team. The scrum team, as a whole, is responsible for the development and delivery, system testing, acceptance by the business teams and finally in knowledge transfer. The BRMs would continue to provide clarity on the requirements wherever needed. They are responsible for ensuring what the team delivers meets the business needs. The delivery manager is responsible for ensuring the team has what it needs to deliver successfully. The solution architect group would help the scrum teams with any design inputs or clarifications during execution. The solution architect is responsible for ensuring the delivered solution is in alignment with the defined technology landscape and standard. The shared resources and the IT operation team would be assisting with the project on need basis. They are responsible for aligning with the team on timeline to ensure the team's success.

In the support stage so called post stabilization, the scrum team would do knowledge transfers to the defined support teams to ensure they successful ongoing production support for the newly implemented capabilities, including incident handling, bug fixing or carrying out standard changes.

This future state workflow will ensure involvement of the teams very early on, on the project and enable them to collaborate better.



Picture 6 IT senior leadership alignment to the new structure (Keil 2018)

Picture 6 highlights that the portfolio management function will ensure to have standard process across IT projects. The key purpose of the PPMO function is:

- Maximize delivered value by:
  - Driving informed IT investment decision-making
  - Ensuring visibility and alignment across functions
  - Driving process improvements and adoption to increase effectiveness

The Portfolio Management function would be responsible for the below activities:

- Define standard input, outputs, criteria, and communication for project intake, prioritization, skills & capacity planning, initiation, implementation tracking, closeout, and benefits realization.
- Ensure visibility to portfolio health including IT investment decisions, prioritization, criteria, status, conflicts, and risks.
- Offer consultation and facilitation assistance around processes Proactively identify issues and challenges and pursue and facilitate resolution, ensuring connections between relevant functional resources and facilitate as needed for example prioritization, resource planning and issue resolution.

The PPMO function will also drive change management and communication practices across IT to drive:

- Adoption and utilization of IT processes and solutions
- A common understanding of the value proposition of IT initiatives.

They will:

- Develop and manage IT change management and communication plans around IT strategy and change initiatives.
- Create and deliver content for such plans appropriate to target audiences.
- Consult on change management and communications best practices, serving as a trusted advisor to IT.
- Develop and implement training plans associated with key IT initiatives and processes.

Another function of the PPMO would be offer relevant data, visualizations, and reporting that informs decisions and drives insight into IT effectiveness at delivering value at all levels of management from executive to tactical. They will:

- Establish PPMO data, visualization and reporting to evaluate IT value and performance that enables identification of opportunities and continuous improvements.
- Manage data sources and establish processes within the IT process/workflow toolsets needed to provide accurate, consistent, and usable data.

- Govern data related to assessing IT value delivery and performance.

### 3.2 Changes in organization culture

As described in above chapter the PerkinElmer IT organization was going through a drastic change as part of the transition. How to keep all the stakeholders, which in this case are all IT organization employees, motivated, interested and innovative for the future opportunities. There needs to be steps taken to make sure that the right message is heard loud and clear as well as all the questions needs to be answered fairly quickly for the employees to avoid further confusion.

Digital transformation calls for more than just updating technology or redesigning how workflows through departments. Failure to combine the effort with employee respected values can create additional risks to an organization's culture if not managed properly. Where collaborative efforts could help shift the culture to understand, embrace, and advance digital transformation and receive well needed support of the organization employees. In view of the possible challenges mentioned above that exist in our times of digital transformation and continued change processes, the enablement of a culture of innovation appears to be an important activity.

By ignoring culture, an organization risks transformation failure. 40 digital transformations were assessed, and it was found that the proportion of companies reporting breakthrough or strong financial performance was five times greater (90%) among those that did not focus on culture (17%). The fostering a digital culture is even more powerful if we look at sustained performance: nearly 80% of the companies that focused on culture sustained strong or breakthrough performance. Not one of the companies that did not put focus on culture achieved such performance (Hemerling et al. 2018)

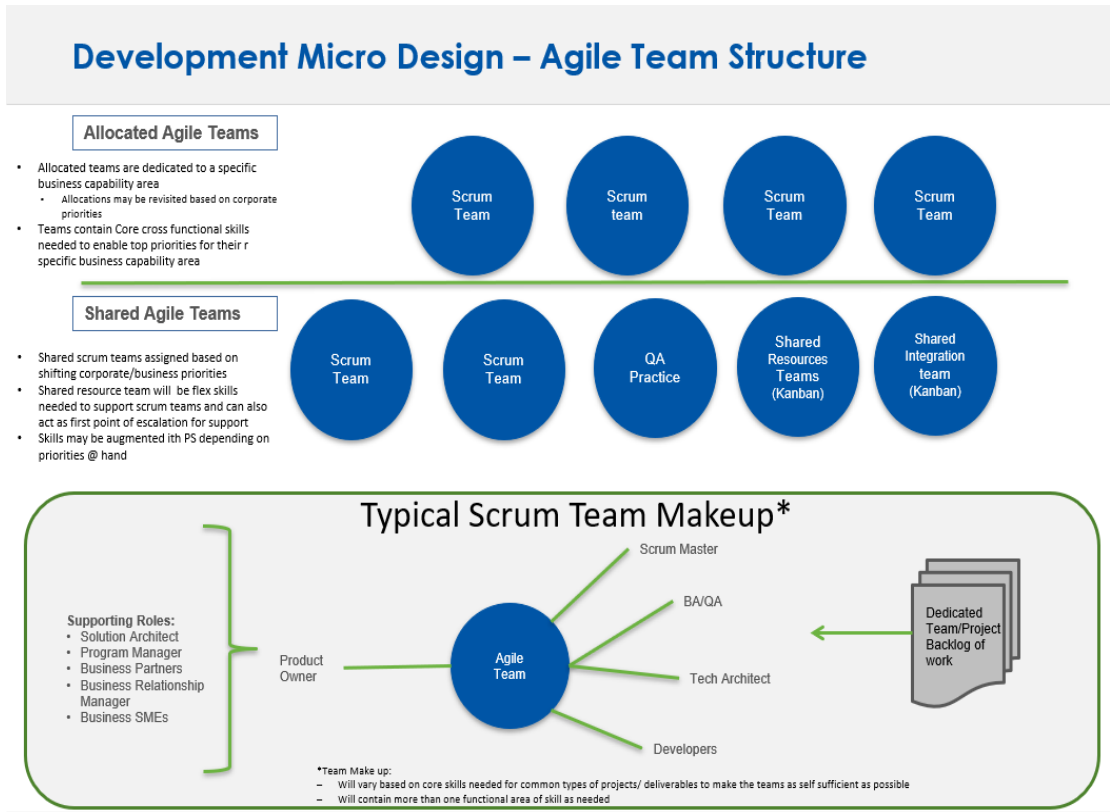
For the study company the culture change started with the following steps taken by PerkinElmer CIO:

- Appointed a core team coordinated by PPMO leader and supported by BRMs and HR are focused the overall effort and specific steps below:
  - Agile delivery of Business-Prioritized Work
  - New and re-aligned roles in IT

- Partners for scale & efficiency
- Identified lead change facilitators for each region and mapped the employees to each lead to help drive two-way communication vehicles that are frequent & informal and led by people you know and work with closely.
- Organized a session with the IT managers to share the agile readiness assessment report for the IT organization. The goal was to engage in a discussion of where we are looking to go, opportunities, and implications so that you as managers can help lead the way.
- Completed CIO meetings to share details and collect input in Krakow and Shanghai and planned meetings for Hopkinton and Waltham.

Next steps include the following:

- Discussions with your manager as part of your performance review regarding career as it relates to the new organizational design. You will notice that new performance dimensions are being used to help managers and employees think holistically about performance. These dimensions balance both the outcomes (or the “what”) the employee accomplished and the approach (or the “how”) that the employee used.
  - Ongoing Skill Development. The capabilities the employee has developed as he/she worked to achieve his/her goals.
  - Values and Behaviors. How the employee developed team relationships and demonstrated positive behaviors in achieving his/her goals.
  - Results. How the employee’s contributions and achievements have supported the success of their team and PerkinElmer.
- Identification of our first full agile pilot.
- Introductory call with lead change facilitators.



Picture 7 Agile team structure (Keil 2018)

One of the key points and biggest culture changes to the study company was to create agile way of working and team structure. As the picture 7 presents, the the future state organization, project teams will be made up of cross-functional skills needed to deliver the project successfully. Team makeup may change based on project priorities.

Picture 7 takes a deep dive into the development vertical. While PerkinElmer would like to execute projects in an agile mode, not all projects may be executed with agile methodology. Some projects may continue in the waterfall method. Not to forget that agile methodology takes time to learn. Lesczynski et al. (2014) points out that agile done properly can be incredibly difficult for organizations to adopt. Especially large organizations with a long history of waterfall development. It requires changes in multiple levels in the organization and processes.

For business capability areas that have a high amount of demand over time, there will be dedicated project teams allocated for a longer period. These teams will have core cross functional skills which are needed for executing the priorities for the respective business capability areas. Skills not needed on a consistent basis will be pulled from

shared resource teams. Working in one business capability area for a longer period will offer the teams to develop subject matter expertise and continuously improve how they work together. Good thing to remember, as Jurca et al. (2014) points out, that agile doesn't necessarily address the usability of the software product and good user experience is still needed.

The shared agile teams would be assigned based on the shifting priorities of the businesses. This team will have flex skills which can support both the scrum teams and the support team's basis the need.

A typical agile scrum team would consist of the roles below. Each role has a speciality area defined below. However, when working as part of a scrum team the focus is on what is needed to deliver, and therefore, each member may be involved in activities outside of their specialty as needed.

- Scrum master, who is a facilitator for the scrum teams.
- Business Analyst who will analyze the requirements and document the business processes or systems or a Quality Analyst who will be responsible for ensuring adherence to quality standards and compliance and ensuring the system is bug free.
- Technical Architect who would be working on the technical design and development of the project.
- Developers who would be responsible for code writing or execution of the project.
- The BPs, BRMs, Business SMEs, Solution Architect would work closely with the agile teams to ensure smooth delivery of the project.

This composition of the team however would vary based on the project and the requirements. I would also agree with Paquette (2016) that agile teams do not have access to production servers and systems in large organizations. Tactical requirements of rollouts to production require increased formality, coordination and project artefacts that are normally associated with agile.

### 3.3 Communication and commitment

As Sacolick (2020) states for the 7 steps of communication strategy

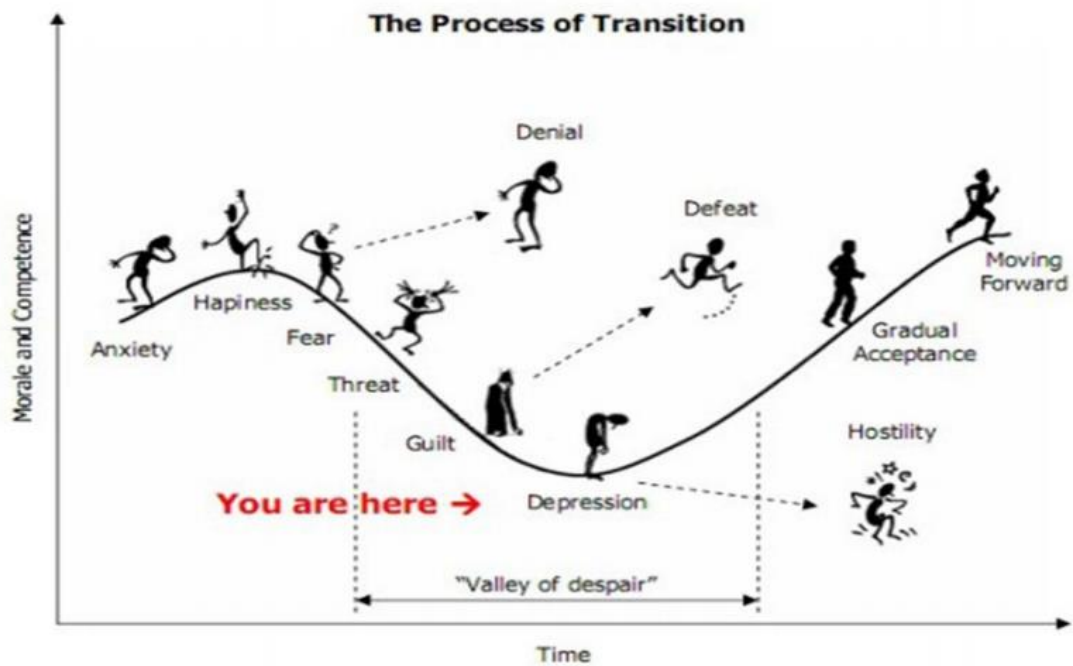


- “1. Gather facts and data that explain the change in simple fashion. No one wants to see leadership changing with the wind with frequent direction changes. Start at the beginning explaining why and use data and facts to justify the strategic changes.
2. Define what you are not doing. A true plan would require prioritization and explaining to employees what’s new, what’s different, and what’s stopping to enable the new priorities or functions.
3. Redefine your vision. Every digital transformation effort should include a future vision. We all know the future is cloudy, so if you’re going to announce changes, it’s best to announce a new version of the vision statement and clarify key differences.
4. Define what assumptions need testing. If you have all the answers, then you’re either overconfident or bringing the plan to the team way too late. Leaders define transformations on a foundation of assumptions that require ongoing validation all the time. Testing assumptions is required even more with collected data. No one believes or trusts leaders selling new directions without acknowledging what needs further research around markets, customer segments, suppliers, technologies, analytics, or internal operations.
5. Review existing budgets, compliance factors, and other constraints. Do your homework. If you asked the team to build a scooter, you can’t expect to develop a motorcycle with the same budget. Employees likely know the organization’s regulatory and compliance requirements that may prevent or constrain the new vision. You don’t need to know all the factors but announcing a new director without considering some of the financial and legal constraints may help create a new group of transformation detractors.
6. Consider the impacts on people and processes. Does your effort require any other investments in processes or tools? For example, if the effort now requires developing customer-facing analytics, acknowledging that the program requires new data science talent, dataplatforms, or data governance shows that the organization is prepared to make the required investments. Equally important is to consider how canceled, delayed, or changed programs impact the people who were directly working on them.
7. Develop your communications plan. Announcing strategic course change requires a communications plan and ideally a collaboration with those people already working on

the transformation programs directly and indirectly. Elements of these preparation steps should help in creating the communications required.”








The study company had quarterly meetings amongst the whole IT organization lead by their CIO. In addition to this there was a group created which was called as Change facilitators. Global IT organization was divided into groups where a change facilitator was providing information to the team around the transformation and delivering information from the ground to the upper management. I was one of the facilitators.

As PerkinElmer CIO stated in the Re-Imagining IT Newsletter Vol. 1 “IT’s relevance to PerkinElmer’s business goals has never been greater. Re-Imagining IT is key to the success of the challenging and exciting journey ahead, but it won’t happen without support from all 160 of the rest us working as one team.” The change facilitators announced with one voice to the teams that the change is here and it is for the good of us all. These facilitators collected teams concerns and doubts so those could be addressed with the upper management where needed. Change facilitators were trained and introduced with the basics of the change communication, Picture 8 visualizes the standard response for employees when the change is announced. The critical piece was to get over of “valley of despair” as fast as possible to be able to move forward.



Picture 8 The process of transition (Imperial 2015)

Part of the case organizations communication strategy was to introduce new training and developing opportunities (Picture 9) and mentoring inside the organization to gain more understanding to the business as a whole (Picture 10).

<p>You are Invited to take control of your learning and development through reimagined learning experiences designed to connect the world of PerkinElmer employees and managers.</p> 	<p>Taking the best of the classroom experience and transforming it through cutting-edge learning technologies and world-class contemporary learning content.</p> 	
<p><b>Launch ~ February 2019</b> Those who can dedicate 2-3 hours per week to your learning Virtual training to allow self-directed content review and assignments</p> 	<p><b>Development Focus Areas</b></p> 	<p><b>Who?</b> Those Intellectually curious, self-motivated, committed to your own learning and development, willing to share &amp; receive feedback.</p> 
<p><b>Learning &amp; Development Areas for IT</b></p>		
<p><b>MyPath Learning:</b> Using world class technology solutions, participants will learn to lead through change, communicate for influence, and give and receive feedback</p> 	<p><b>Mentorship Program:</b> Cohort of mentors and mentees willing to learn, coach and gain development through partnerships with colleagues in IT and across PerkinElmer.</p> 	<p><b>Skills Training:</b> Take courses through virtual platforms to learn, test and track your knowledge of IT skills of the future. Skills include DevOps, Agile, Microservices, and more!</p> 

Picture 9 Learning and development areas for IT (Keil 2018)



Picture 10 Mentoring offer for the team (Keil 2018)

### 3.4 Implementation of Re-Imagining IT mentality to Client Operations

Now that the whole organization plan is out there, would be a time to see how that would fit on department level. In general, the message is that the organization is moving to project-based approach and using agile and scrum methodologies to deliver fast results. Case study department is Client operations which contains multiple information technology support centre (ITSC) groups. Client operations is part of IT operations. As Picture 5 High Level Working Model describes, IT operations and support are taking care of the delivery and support phase. Usually with operations the approach is more closer using waterfall model than anything else on its projects. Same goes with the support which is part of the ITSC groups work. Big part of ITSC is IT Infrastructure Library (ITIL) based work and there the needed connection was found.

ITIL is published in a series of books, each of which covers an IT management topic. The names ITIL and IT Infrastructure Library are registered trademarks of the United Kingdom's Office of Government Commerce (OGC) The Information Technology Infrastructure Library (ITIL) is a set of concepts and policies for managing Information Technology (IT) infrastructure, development and operations. ITIL is the most globally accepted approach to IT Service Management in the world. ITIL provides a large set of best practice, drawn from the public and private sectors internationally (Dabade 2012).

ITIL is a detailed framework of significant IT best practices, with comprehensive checklists, tasks, procedures, and responsibilities designed to be tailored to any IT function. It divides key service delivery processes between those covering IT service delivery and those for service support, ITIL has now become the standard for describing many fundamental processes in IT service management, such as configuration or change management (Moeller 2013). ITIL is used to demonstrate compliance and to measure improvement. There is no formal independent third-party compliance assessment available for ITIL compliance in an organization. Certification in ITIL is only available to individuals.

Pmi (2004) PMBOK Guide, a project is a temporary endeavor undertaken to create a unique product, service, or result. Al-Maghraby (2008) introduces service as a project where the deliverable is the actual service being requested by the customer. He states that “Considering the IT Service delivery as a project indicates a necessary resemblance or correspondence between the concepts and principals of project management and those of IT Service Management. Viewing project management from the point of view of the PMBOK® Guide, and IT service management from the point of view of ITIL V3 framework.”

<i>PMBOK® Guide</i> ITIL	Initiating	Planning	Executing	Monitoring & Controlling	Closing
Service Strategy	Service Portfolio Review to check alignment with strategy, portfolio balance, financial value maximization, and the suitable priority. (Chartering)			Reconsideration within regular Service Portfolio Reviews	
Service Design	Service Catalog Management  Service Level Management and generating SLAs and OLAs (Contracting)	Capacity Management  Availability Management  IT Service Continuity Management  Information Security Management  Supplier Management (Procurement)		IT Service Continuity Management	
Service Transition		Transition Planning and Support  Release and Deployment Management	Release and Deployment Management  Service Validation and Testing	Change Management  Service Asset and Configuration Management  Knowledge Management	Evaluation
Service Operation			Event Management  Incident Management  Request Fulfillment  Access Management  Problem Management		
Continual Service Improvement				Continuous improvement of all activities during all stages of the service lifecycle whenever the opportunity exists	

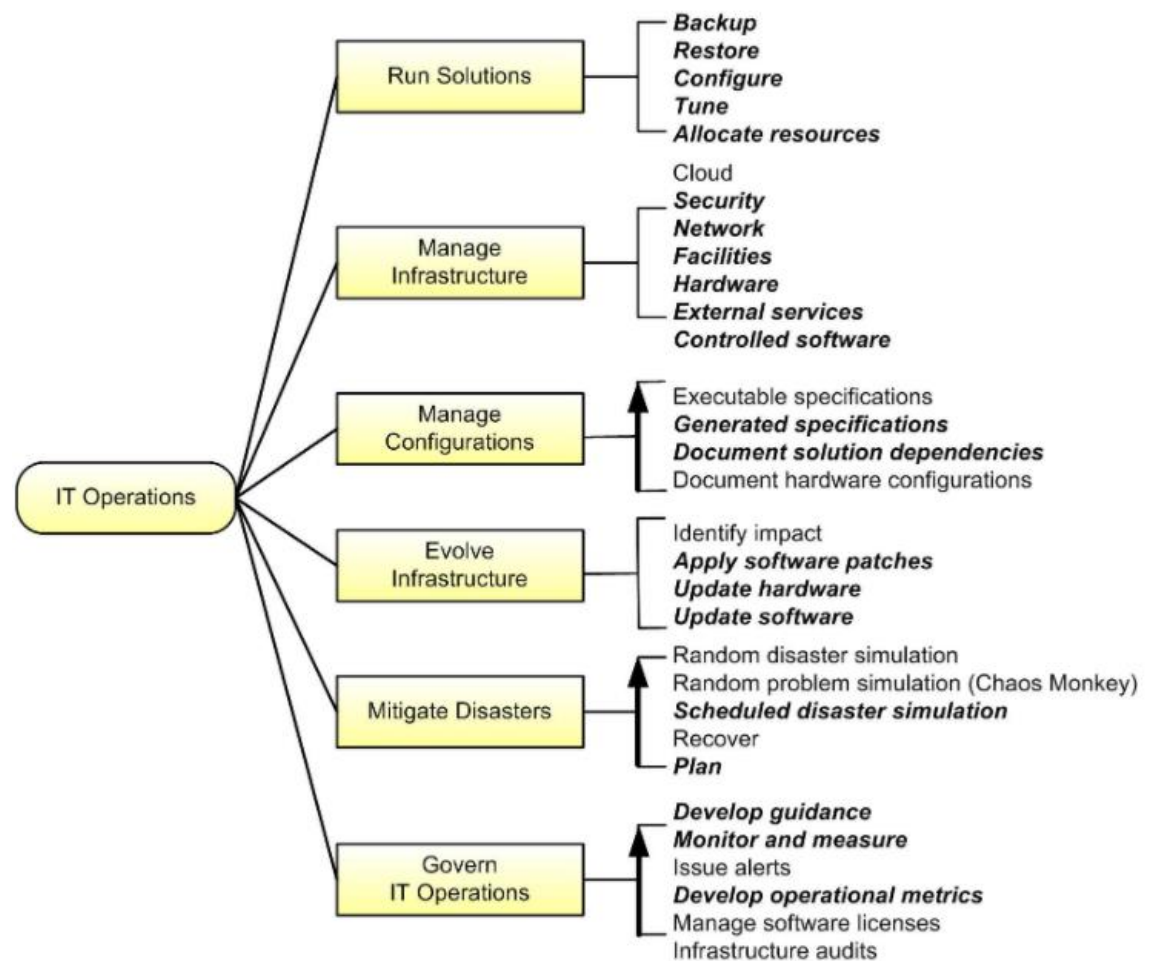
Picture 11 Correspondence Between PMBOK Guide Processes and ITIL® V3 Processes (Al-Maghraby 2008)

Picture 11 shows correspondences between project management and ITIL. Al-Maghraby (2008) introduced the following aspects of project management visible within ITIL V3 IT service management framework:

- **Alignment with Strategy:** The Service Strategy guidelines define a set of processes that makes Service Management a strategic asset. This is a bidirectional effect; since the Service Management vision affects the strategy laid out by the organization, as well as this vision being aligned with the general frame of the organization mission and strategy. The result of this integration is the reflection of Service Management objectives in the decision-making process at the top-level management.
- **Service Portfolio Management:** The Service Strategy also defines the process of Service Portfolio Management, which is in analogy to the project portfolio management. This dictates techniques and methods for prioritization, selection and resource allocation for existing and on hold services/projects, as well as balancing the portfolio for desired distribution based on several criteria like market, service/project size, and long or short term. The maximization of the overall financial value of the whole portfolio is one of the key objectives of portfolio management, which is considered within the Financial Management process of the Service Strategy.
- **Customer Satisfaction:** The satisfaction of the customer is a pivotal objective in service management and project management, aiming at fulfilling the needs of the customer and delivering a high quality service or product, with the strategic objective of building a wide customer base that is supported by mutual trust and loyalty. This is achieved through continuous communication with the customer during the service life cycle/project execution, to gain his commitment at every stage.
- **Knowledge Base Utilization:** The concept of Service Knowledge Management System in ITIL V3 for referencing and adding to historical information is consistent with the concept of lessons learned documentation in project management for the same purpose of future reference and addition in order to capitalize on the gained knowledge and experience within the same organization.
- **Project Team Involvement:** The project progress through the several processes during its lifecycle is carried out by the project team, headed by the project manager, and being coordinated with the project stakeholders. IT Service Management as well involves several roles and responsibilities to perform the activities of every process

in the ITIL V3 framework. The service provider organization assigns every activity or function to the corresponding group within the organization units.

As mentioned earlier, client operations are part of the IT operations department. IT operations as a whole is traditionally seen as department which uses waterfall model to run their projects. To align the PPMO structure of the IT organization, we could take advantage of discipline agile framework. Project management institute (PMI) describes discipline agile as promotor for adaptive and context-sensitive strategy. Discipline agile has goal driven approach that indicates the decision points that you need to consider, different techniques and strategies to address on these decision points. It also navigates through the advantages and disadvantages of these techniques. Main points to discipline agile delivery (Scott et al. 2016) are delivery focus, risk-value lifecycle, self-organizing teams with appropriate governance, context sensitive and enterprise aware.



Picture 12 The Operations process blade (Pmi 2017)



Picture 12 shows the decision points that needs to be considered for IT operations.

1. Run solutions. Main reason for IT operations existence. Run organizations solutions in production.
2. Manage infrastructure. Ecosystem is made up of the solutions that has been built and bought (hardware, software, network, cloud) which work as a base for the solutions. Existing infrastructure needs to be managed and evolved.
3. Manage configurations. Need to understand the configuration of your IT systems. Including dependencies between all aspects of it, recognize the impacts of changes. Traditional strategies are usually manual maintenance of configuration and dependency metadata, a risky and expensive proposition at best. Agile strategies focus on generating the required metadata via tools that the team uses.
4. Evolve infrastructure. Evolve your IT infrastructure over time, upgrading databases, operating systems, hardware components, network components, and so on. Because of significant coupling of your solutions to your infrastructure and its components to other aspects, this can be a risky effort but also very important one.
5. Mitigate disasters. Disciplined organizations will plan for disaster recovery. Potential disasters include servers going down, network connectivity going down, power outages, failed solution deployments, failed infrastructure deployments, natural disasters such as fires and floods, terrorist attacks etc. Disciplined organizations will run through disaster scenarios to verify how well their disaster recovery plan work in practice. Also test environments can be created and automate the testing.
6. Govern IT operations. As with other processes, all activities of IT operations must be governed effectively including documentation. Operational governance is part of organization's overall IT governance.

Client operations department would be able to adopt project-based approach through ITIL implementation which can bring value to the team. If we look at the IT Operations departments view and disciplined agile there are clear benefits and structure for this approach. Naturally this kind of change does not happen instantly and has some growing pain in the organization. On the other hand, when the digital landscape keeps growing it will get extremely difficult to keep track of everything without this kind of discipline. By

adopting these This way, the departments strategy would fit seamlessly to the higher-level organizations plans as well.

## 4 RESEARCH APPROACH

### 4.1 Case organization

PerkinElmer Inc. is a global leader focused on improving the health and safety of people and the environment. Their dedicated 13,000 employees globally are enthusiastic about providing customers with great experience as they help solve critical issues in human and environmental health. PerkinElmer's innovative detection, imaging, informatics and service capabilities, combined with market knowledge and expertise, help customers gain greater insights into their science to better protect their environment, their food supply and the health of their families (PerkinElmer 2020).

Case organization has gone through the digital transformation in various phases as the one of the growth strategies is buying promising companies. The case study itself concentrates on the high level of the transition and on one department of the organization, client operations, that is going through the digital transformation as part of the whole IT organization. Client operations as department has around 55 members around the world in PerkinElmer's sites with the purpose of helping PerkinElmer's employees with their IT related issues, questions and requests as a first line of contact surface between user and IT as well as manage the endpoints of all PerkinElmer users.

### 4.2 Research design and process

According to Hirsjärvi et al. (2009), research should always have a purpose. The research in this thesis work is mostly qualitative and is conducted as a case study. Survey, interviews and observations play a key part in the study. Articles and literature are used to examine previous research and it is also used to contrast gathered data against previous theories if suitable in IT organization use case.

Process of the study has been concluded in three phases. First phase was the interviews in the beginning of the transformation with the management and the expectations around it. Second phase was the observation how the team was working through the transformation and the actual changes of their department. Third phase was a survey amongst the team, how they see themselves and the things they value after they have been working through the change for a year.

### 4.3 Data collection

Observations can be conducted on nearly any subject matter, and the kinds of observations you will do depend on your research question. You might observe traffic or parking patterns on campus to get a sense of what improvements could be made. You might observe clouds, plants, or other natural phenomena. If you choose to observe people, you will have several additional considerations including the way you will observe them and gain their consent (Driscoll 2011). Observation is used to form an overall understanding of the case organization. Also, the observation of the transformation progress of the client operations department has been one of the collection points.

Interviews can be done in person, over the telephone, or computer using Skype or Teams. The benefit of being face to face is the ability to see facial expressions and body language. These moves could be written down as notes as the interview goes along and could be useful in the data analysis on the research. Then again, interview participants may be uncomfortable with a face to face interview or not technology familiar to use computer. Using the mobile phone or Skype is cost effective and could provide a level of comfort to participants. All the aspects must be viewed in order to choose the best method of conducting the interviews (Wilson 2012). Data collected from the research interviews create a high-level picture of the expectations that this transformation has as well for the current state of the organization. Interviews were published on Re-Imagine IT Newsletter Vol 1 for the whole organization.

The survey approach refers to a group of methods which is part of quantitative analysis, where data for many organizations, are collected through methods such as mail questionnaires, interviews, or from published statistics. This data is analyzed using statistical techniques. The survey approach tries to discover relationships that are common across organizations and for that reason to provide general statements about the object of study (Gable 1994). Data collected from the surveys purpose is to measure the client operations employee's opinion and acceptance of the new working model and the transformation in general. Survey took place after the client operations team had gone through the digital transition for 12 months. Survey was sent to 48 recipients and 37 responded. Survey was created through Survey Monkey -survey tool and the responses were anonymous.

Case study started from the client operations department and the journey of the digital transformation as part of the bigger IT organization. Digital transformation focuses in

most cases to the change by gaining more value by using digital solutions. If we add the project management office as the key piece of the transformation, that will bring agile, scrum and multiple other methods and means. These methods are seen usually as software developers' tool and as software projects.

Client operations consists of various information technology support center (ITSC) groups and is part of enterprise IT operations which means that the majority of the work is related to responding to our users through ticketing system or we are deploying new hardware for the users. How would department like this to be part of the transformation and seen from the organization top level?

Enterprise IT Operations is the backbone of IT and is the core to the design and implementation of the Global IT operating model. Re-imagining IT will even further integrate Enterprise IT Operations teams into the planning, solutioning and delivery of our projects that support business capability creation and enhancement via software applications. Enterprise IT Operations will also continue to mature operational processes (ITIL, Tier 1 & 2 support, Endpoint management) so that our backbone is even stronger and further supports value delivery for the PerkinElmer business.

## 5 RESULTS OF THE CASE STUDY

### 5.1 Re-Imagining IT in the case organization

#### 5.1.1 Interviews in the beginning of the transformation

The interviews for the IT senior leadership were done right in the verge of the transformation. The interviews were done for the IT directors who were responsible of different parts the digital transformation. Purpose of the interview was to provide a better understanding to IT employees what to expect from the digital transformation. The interview was recorded to PerkinElmer's internal Re-Imagining IT newsletter Vol 1. Interview questions and requests were sent via email to the participants depending on responsibility area of the transition. Interview method was selected as email because of geographical location, time zone differences and scheduling conflicts.

First IT director interview was about general vision of the digital transformation and her vision around it. Questions that the interview had as follows:

1. What does Re-imagining IT mean to you?
2. As per you, what are the top 3 things that you see changing with Re-imagining IT?
3. What as per you would be one of the most challenging things in the journey of Re-imagining IT and how do you see the ITSLT mitigating the same?
4. How would you measure the success of Re-imagining IT?
5. What is the message that you want to give to the IT team across the globe for Re-imagining IT?

Second interview was for the newly founded PPMO and its IT director and leader. There was only one question for her to address. An open question was selected in order to get an understanding how IT will operate in the future and prepare IT employees to the culture. The question was: What is our future state workflow?

Third interview was done for the transformation communication leader. She had created separate group called Change facilitators. These facilitators were introduced to the transformation a bit earlier than the rest of the organization and the expectation was for this group to act as intermediates between IT upper management and IT employees and communicate the transformation message both ways. Questions to the communication leader were as follows:

1. What's different between Re-Imagining IT vs. "re-orgs" in the past?
2. What is the difference between Business Partners and Business Relationship Managers?
3. For Re-Imagining IT, what is the process for filling the new roles?
4. Will all projects be executed in Agile Methodology?
5. How are you planning to execute the Agile Project or pilots?

It was interesting to notice that, even though the questions were different, the general message was similar on the responses. This shows that the planning had been done together amongst the senior leaders in the organization and demonstrates a unified front to the team in the beginning of the transformation. As an example, here are quoted responses of all three of the interview participants to demonstrate the alignment amongst interviews:

1. Alignment and Partnership: At the end of the day improved alignment and partnership with our business stakeholders has been at the heart of this transformation journey.
2. In the new organization structure, the teams will work together to ensure the right solution is provided for business needs.
3. BRMs will work closely with the delivery teams, and architects, to ensure: the delivery teams have the information needed, at the level of detail needed, to implement the solution and that the solutions delivered meet the needs and expected value of the business.

With alignment on the responses also the enthusiasm around interviews really reveals the keen interest on the matter in hand. All interviewed leaders were very passionate on their answers and the responses sounded very confident. I did not see much hesitations in the answers nor any effort not to answer the question which was addressed.

One of the key takeaways from the interviews was the frequent engagement with the business. That was the combining piece of all the interviews and a priority to the transition. Clearly the main reason for the digital transition was to serve business better. This reason is very understandable as IT, as part of the company, is to serve the business purpose and support it. I would like to add that business works as an initiator to the new projects for IT, IT work in general and prioritization around it.

Second combining factor was the alignment and partnership. Business was one of the key stakeholders in that but also understanding to the other IT departments. Effort to gain better understanding how everything works and function in organization from department to department and even to understand different parts of business. Time when IT was just taking care of the data and the process flow where over and IT was there to help business to success.

This brings me to the third combining factor which was getting away from silos. IT department there are many specialists that are basically hired to do some specific job and that job alone. Now the intension was to bring more understanding to employees what other employees were doing and synergies around that. If you think about the project workflow which was released after these interviews, it was clear that departments were meant to work together, and you cannot work together without understanding the bigger picture.

As a fourth combining factor there was the new work methodology. Agile, scrum, unified process flow and standardization was mentioned. Clearly the purpose is to take advantage of the new faster methodologies and provide faster results around it. Of course, this would again provide better alignment with the business but also the work culture was expected to be shifted which is not an easy task to do.

Even though the interview questions were different depending on a person and the role that this person was responsible in the transition, the answers still provided unified message. Interview was a good approach to help selling the transition. Some of the responses are clearly based on the digital transformation literature but also the general message was clearly revealing the expectations and direction where the organization



was heading. The answers also were very open and challenging for the reader to take part of the change, ask questions, make the reader advocate for the change.

### 5.1.2 Observations through the transition

Observation for the case study department was done by me as one of the department leaders. I was pointed to lead this department in early 2019 which made it easier to observe the transition in the front seat. It was a unique position to observe the situation as well as navigate the transformation. I had been part of the change facilitators group which gives the clear path to the expectations of the transformation. After I took the responsibility to lead the department, I collected the observations around all the various communications across the regions with the department members. Communication around business leaders was constant and especially with the upper management. This has kept the observations honest, as clearly there is conflict of interest. Observations were done in orderly fashion as part of the department, leading it, communicating with all the members of the department and collecting feedback from the business stakeholders and IT senior leadership.

In the beginning of the transitioning in 2018, the ITSC groups functioned in a very site-based manner. PerkinElmer's strategy is to acquire other companies and that history could explain this approach. Every ITSC group was clearly responsible for their site only and their priority reside there. There are also smaller PerkinElmer sites, mainly sales and service employees, that do not have dedicated ITSC at the site. These sites had been pointed out their supporting ITSC group from some other site. ITSC had shared some common tools and they had some common ground on the software portfolio, but definitely the silos were there in the beginning. Most of the team members had been working this way for several years and it was the only method they knew.

Every site had their own ways to accomplish their daily tasks and ways to intake their tasks from the general user base. Most of the ITSC locations did have some sort of documentation around their daily challenges. They had their own notes for various tasks they did when they prepared a user account or when they prepared a new laptop. There were various methods to accomplish same things and every ITSC group had their go-to persons when they were facing an unusual challenge. In this kind of approach, the resources were tied to the specific site. That was a privilege for the sites to have a dedicated IT resource, but on the other hand there were always sites that were missing

ITSC completely. These sites were trying to cope by communicating with their pointed IT Support Center in some other site. Of course, this brings the question around prioritization of tasks and how that is done. In most cases this ended up being dependent on the relationships that users had with ITSC technician. Most of the users had their “guy” where they went with their IT issues. Once again, what happens when that technician is not there some day for a reason or another?

This approach had been feeding the so-called hero culture. Chomicz (2020) states “Heroes have a habit of keeping information to themselves, spending the majority of their time saving the day and fixing issues on their own. Rarely is enough time spent transferring their knowledge and skills to others so their expertise and knowledge can be replicated and put to good use throughout the business. A hero-oriented culture thwarts the company’s ability to grow, scale and be more efficient. Heroes do not generally develop other team members’ skills or share valuable experience and insights with them. They do not want another hero to take them out of the limelight and steal their success. This cultural behaviour is dangerous and damaging as the company cannot scale without their input. However, getting information from them is difficult. The situation may become precarious because a growing company can encounter unpredictable changes such as technology shifts, economic shifts, a changing competitive landscape and compliance obligations. All of these require the business to be responsive, have operational efficiency and nimbly adapt to changing market conditions. If business processes mostly reside in individuals’ minds, there are no concrete rules to follow and the company will soon fall into utter chaos and decline.”

In a global scale these various ITSC groups had privileges to manage their sites from IT perspective. As there was not any standardization and every group were managing its own site, there were multiple variations how things were done and managed. In most, cases if someone left the company there was not any knowledge how this individual had managed his site and why these things were done in this manner. This approach had led to situation that the ITSC as a whole has a lot of history burden that no one had any knowledge and in global environment you do not really want to disrupt the business either. With this approach, the situation was just going to build the historical backlog without any promise of getting into any better shape.

When I took over the department leadership, the digital transition started for this department. The first part was global communication amongst the team. As it was planned to use ITIL and implement it with using project management methods, this would bring alignment to the strategy. Strategy was clear and simple; all the ITSC groups are part of one team. Team will work with standardized manner across the globe, which would lead to unified service portfolio in the longer run.

Next step was to start building a knowledge base and utilize that. Every individual ITSC group sent their documentation and notes around their daily duties. All of these were organized as a knowledge base for the new global team to be used equally and everywhere. This effort was taking advantage of the lessons learned by the technicians around the globe and this hopefully makes the troubleshooting more efficient for the global team in the future. This will also weld the team together as they can contribute to the team's benefit.

Service portfolio management was next in line. Now that there was officially a global team with expanding knowledge base, it was fairly easy to start building a service portfolio. A global ITSC group had very clear services that they provide, there were tens if not hundreds of smaller services that they had been providing. By collecting the knowledge base from all the various groups, it painted a picture of all the services that was out there. It helped to collect clearer and more standardized portfolio of the services globally, with the end goal that after a while this global team would provide unified and standardized service portfolio for their customers.

Final part was the customer satisfaction. Global ITSC was hired to help PerkinElmer's users and these users where this groups customers. To provide highest service to the team's customers, it was decided to take full advantage of the ITIL tool that was already introduced to the company but not fully adopted. This tool acted as an intake channel of all the work that ITSC team was expected to deliver for our customers. Tool provided unified channel to our users to contact ITSC and it was no longer related to individuals. It is equal to all and it documents the incidents which are hard to forget after that. Regardless of the tool, the service needs to be top of the line and incidents are meant to be resolved. This will create healthy visibility to the whole team for all the workload for every individual and if used correctly, there will be a lot of happy customers as well which are automatically taught to our process.

As mentioned earlier, this department has a lot of history burden. For several years, these groups have had capability to do their duties as they see best fit. This meant that

the environment had a lot of different variations. Supporting this kind of environment was not very efficient nor according to any best practice. It was time to involve project teams to fix this situation. Project team was selected from the global team to solve and fix one issue at a time. Issue to be fixed could be Group policy object (GPO) handling globally, operational unit (OU) site structure, or create a standard operation procedure (SOP) to create new hire account. Key point was that every continent was supposed to be part of these projects and all the projects were led in a scrum manner. These kinds of projects standardize the environment and allow team members to participate and to be heard. By using scrum and work breakdown structure (WBS) methodology, team used only minimal time to report but enough to bring necessary information needed to push forward.

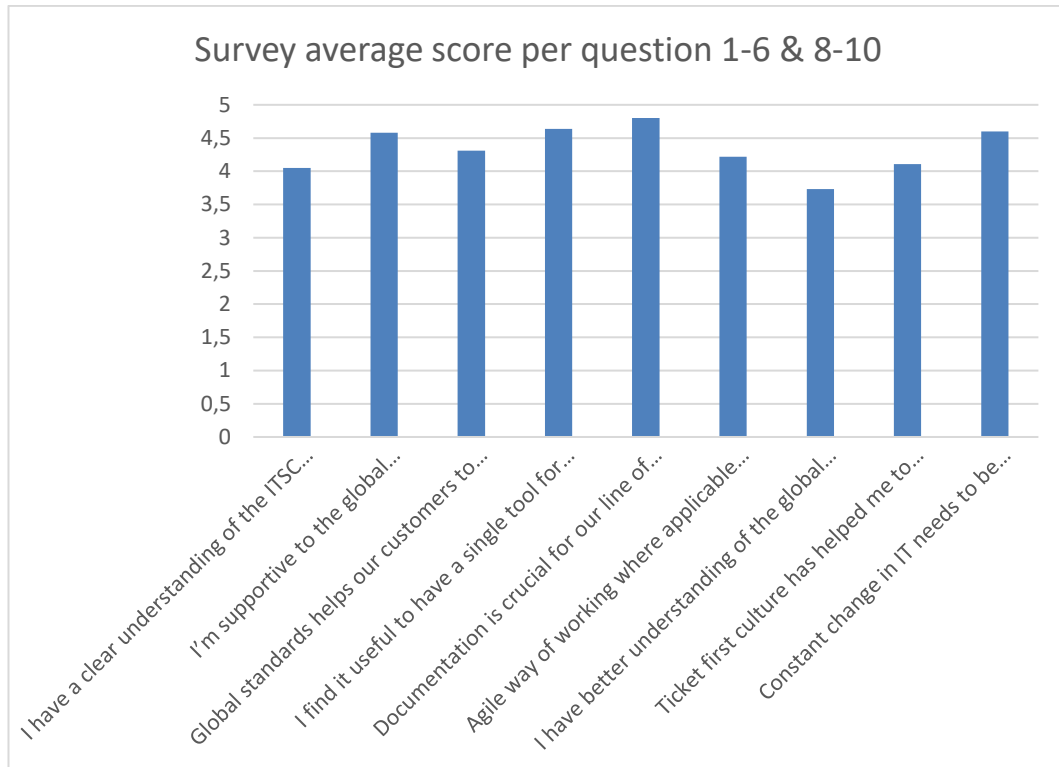
Now that all the key pieces were in place it was time to make sure that continuous improvement was playing a role for the team. The whole transition could be imagined as a big project and all the pieces that were previously explained as different flows of the bigger project. There is a constant need to go back in the beginning and validate that the current process, documentation, SOP etc. are still accurate and valid. Other way of looking at this project is that it was created to resolve or enhance something. In this case, by standardizing and documenting everything, there should be cycles freed from the team members to do more. This is where the Client operations comes in as result. When global ITSC has found its way to function as a one team globally, next step is to train part of the team to use new technology to benefit the company.

## 5.2 Survey for the case department

After 12 months of the beginning of the digital transformation there was a survey that was sent to all the members of case department. The purpose of this survey was to do a so-called sanity check on the direction where the department was heading and general opinion of the direction amongst the employees. It is very important to get real understanding how the team sees all the changes and have they understood the benefits of the approach. Naturally the feedback would be very valuable as well to gain more understanding of the teams needs and internal goals and how to align these to the strategy moving forward. Risk of this survey not to be valid is obvious as the survey was initiated by the department leader. For this reason, the survey was presented by the regional leaders to the larger team, survey was anonymous, and it was done with known cloud survey tool to protect the integrity.

Survey (Appendix 1) was sent to 48 employees using a web survey tool called Survey monkey. Survey itself was anonymous which should keep results credible. Survey received answers from 37 employees which gives answer coverage of 77%. Most of the survey questions were rated from 1 to 5, where 1 was completely disagree and 5 completely agree. Survey had the following questions:

1. I have a clear understanding of the ITSC strategy
2. I'm supportive to the global standardisation of the processes. This helps us to function as one Team.
3. Global standards help our customers to understand our way of working
4. I find it useful to have a single tool for communication amongst my team
5. Documentation is crucial for our line of business
6. Agile way of working where applicable creates good results (i.e. Windows 7 upgrade, SOP documentation building, AD clean-up)
7. To what extent do you agree that the following are objectives of our ITSC digital strategy?
  - Change and Transform our way of working
  - Improve customer experience
  - Improve innovation
  - Improve decision making
  - Increase efficiency
8. I have better understanding of the global team now than 12 months ago
9. Ticket first culture has helped me to manage my workload
10. Constant change in IT needs to be controlled and documented in some shape or form
11. The GITS meetings are informative and beneficial. Here's how I think they can be improved.
12. What is the single most valuable change that you would suggest benefitting you in your day to day tasks?
13. What is the single most valuable change that you would suggest to benefit your customers?



Picture 13 Survey average score for questions 1 to 6 and 8 to 10

	1	2	3	4	5	TOTAL	WEIGHTED AVERAGE
Change and Transform our IT processes	0.00% 0	2.78% 1	27.78% 10	38.89% 14	30.56% 11	36	3.97
Improve customer engagement and service	2.70% 1	2.70% 1	8.11% 3	27.03% 10	59.46% 22	37	4.38
Improve innovation	0.00% 0	0.00% 0	8.33% 3	33.33% 12	58.33% 21	36	4.50
Improve decision making	0.00% 0	0.00% 0	13.89% 5	30.56% 11	55.56% 20	36	4.42
Increase efficiency	0.00% 0	0.00% 0	5.41% 2	27.03% 10	67.57% 25	37	4.62

Picture 14 To what extent do you agree that the following are objectives of our ITSC digital strategy?

For the questions with the numeric answer from 1 to 10 (Picture 13), survey received an average number of 4,36. This sends a clear message that the team is committed and understood the purpose of Re-imagining IT, digital transformation, ITIL and project-based working. For the question 7 answers were very promising as picture 14 demonstrates. Seems like the whole team was expressing its motivation to push forward. This matrix gave the top 3 goals for management for this year to improve. Based on the

survey, goals were: increasing the efficiency, improve innovation, and improve decision making.

We could also debate whether the team has understood the benefits of the project-based working and ITIL. There is always a chance that some of the employees have missed the larger view of this and are just interested on the new way, how the team works. This may be true, and I hope that if this is the case, it will get fixed with time. Regardless, it is a path forward.

When results are as promising and as positive as this after 12 months since the beginning, it is quite remarkable considering the starting point. The survey had the questions from 11 to 13, asking feedback around team's communication and things that the team would need to do better. There were 79 answers to the free form fields out of potential 111 responses. A 71% coverage is a clear evidence of the team's motivation to continue this path. Some of the highlighted suggestions are already placed on the departments technical roadmap which should look good as the employees can create the change as well.

I would like to state that this should act as a motivator to the whole team and individual level as well. By creating global standardization based on ITIL and constant progress through project management tools seems to be providing good end results. Of course, this is not happening on its own and needs to be pushed and revisited all the time, so the progress moves forward. Part of this pushing forward are the surveys as well. As part of ITIL, surveys are done for the customers. Our plan is to make the next survey to the customers for the final check in.

### 5.3 Transformation challenges in the case organization

If we start looking for challenges through observations from IT organization point of view, most of the issues were related around communication, prioritisation and resourcing. Related to the communication issues, Re-Imagining IT was communicated to the whole company, but it did not mean that everyone will start to act accordingly. There were difficulties to get stakeholders to talk to the newly pointed BRMs. It was very hard to manage the whole IT organization to comply for the new structure in matter of days. The communication did not necessarily receive all the stakeholders as PerkinElmer is a

global company with multiple sites, there are hundreds of stakeholders with various IT needs. As the project suggestions started to flow in to the PPMO through the BRMs, the next challenge was the prioritization. Every project that was brought in, was equally important to the next one, at least from a stakeholder's perspective. IT is not the best organization to give priority to business projects. This created a long list of projects that was supposed to be done, but in which order.

When this was the situation, the next issue was that there were not clearly enough resources to do these projects. In addition, there was a lot of tasks that needed to be done outside of project work. There needed to be some sort of separation between project work and maintenance task. If we look at few steps deeper to the client operations and ITSC work, where the change has been the same size as it was for the whole IT organization. Most of the challenges were related to the change itself. Various ITSC groups were so accustomed to operate how they did and very comfortable at that. The change was seen as too big to even start the change. Usual push back was also around documentation. For some reason, documentation was not seen important to their work and the perspective was solely from their point of view rather than PerkinElmer's.

#### 5.4 Solution to challenges in the case organization

A lot of the issues were very similar to other projects. Communication to stakeholders and prioritisation could always go better. In this case, the communication was fixed by time and by enforcing the message. For prioritisation there should be a board where the business leaders would prioritise the projects for the IT organization. This would also ease the pressure for the resourcing. Of course, the maintenance tasks are still there. It might be good to share these teams in half so that the other half is taking care of the project work and the other takes care of the day to day tasks. After 4 weeks the groups could change their duties, for example.

For client operations and ITSC work, communication was a key as well. It came quite clear after few months from the beginning of the change, who would be the spokespersons for the change and who would take a bit longer to embrace it. To avoid individuals, fall back to old habits, there was created regional governance and reporting structure. This way, there was certain oversight and management on the same time zone, but still global operational model. In addition, when the enhancement projects



started, the project teams were mixed with change facilitators and with the ones who took a bit longer. This was a healthy mix of attitude and talent to continue the grow.

From the very beginning of the digital transformation, the message and goal were clear what was expected to happen. As part of these communications, I acted as a change facilitator and held a speech of career influence around digital transformation.



Picture 15 Re-Imagining IT – Influence career development (Tähtinen 2018)

Picture 15 shows the main points of my speech which was given in fall 2018: “Re-imagining IT and the way it’s structured will give us better understanding how IT and the business operates as a whole. This creates a new level of transparency and opportunities that I haven’t seen in my 14 years in the company.

The new structure of IT will make us to step away from our silos and we need to work more closely with our teams. It’s not like we haven’t worked like a team before but the way I see this, we need to gain more understanding across the board. What is going on in other areas, so we can deliver better value to the business and to their requests. We will be more cross functional and responsive. It will give us the advantage of seeing the bigger picture and visibility how the work is done in other parts of the IT. This is an investment to ourselves to gain more skills, experience and grow our professional network.

For career development there are tools already in place to show where your interest lays. Like Workplace, My Workdays talent profile and personal development discussions, but in the end of the day, it is up to ourselves to make the change.

This is a great opportunity to learn more from various aspects of not just IT, but business as well. The new partnership with the business allows us to learn and promote our skills to a wider audience.

This is our chance to look where we can do better and bring that up for discussion.

As the business gets more digitized by the hour there are new technologies to look at, new challenges to face and new opportunities to have. RE-Imagining IT will bring a need of new skills and job descriptions to IT, so we need take the ownership of our work and show interest on the things that matter the most. Keep our eyes open and seize the opportunities.”

There were times when this and the general message was forgotten around transition for a while to address other priorities but in the end the approach and the communication was very clear and open. I would say that the difficulties lied in employee’s motivation as they had seen many restructures for the organization before and the digital transformation leaders time was needed somewhere else. This created the impression that the transformation was forgotten. A dedicated communication team might be solution as they could keep drumming the message and even assign tasks to make sure that the previous message has been heard. By dedicated I mean resources that could be assigned to this task like 50% of their time.

One thing that came clear to me as well in the later phase was the 10000 feet view of the digital transition. The more I read about it the more I learn and understood it. This would be needed in the beginning as well for the organization to provide full understanding around the effort. Most likely with this kind of information sharing there would have been better and more dedicated buy-in from the user community. How to provide that knowledge to 250 employees all around the organization in the world is the trick.

## 5.5 Reliability and validity

This study combines data collected with multiple methods this is called as triangulation method. Triangulation is often used to describe research where two or more methods

are used. Combining both quantitative and qualitative methods to answer research questions may lead to one of the following outcomes: lead to same conclusion, may complementary each other or results may be contradictory. This method also assumes that the data from all the methods are comparable and may or may not be equally weight in research. Also, the study focuses to the bigger picture, how the transformation and PPMO evolves and functions. The other part is around observation and survey on my own department which I managed at the time being.

The observations for the whole organization are considered as valid from my point of view. As the interviews reflected the vision for the strategy and implementation. Observations on the journey as change facilitator saw both sides of the transition. By that I mean the expectations of the leaders and the employees as well as their reactions.

What comes to the department's observations and survey, the validity might be thought as bit one sided? Considering I was leading the department my observations might be thought a bit too positive than they actually are. On the other hand, the feedback I and my colleagues have received around our departments progress proves otherwise. If we talk about the survey, the questions were created by me and distributed via my regional leaders just to avoid any unnecessary pressure for the participants. Also, the survey was completely anonymous and arranged by external tool which points to reliable and valid results. I have been part of this department for the past 16 years which has provided me the courtesy amongst the team for honest feedback. By this I mean the team would answer the survey truthfully as they do to me in daily discussions.

## 6 CONCLUSIONS

In this thesis, I have shown through literature review how digital transformation affects the IT organization and how project management can help around this effort as chosen in the study organization. Based on literature and with the Re-Imagining IT effort there is a shown benefit of using PMO as a structured approach for the transition. Also, IT Operations and departments inside of it, have found tools from project management to comply with the strategy. These tools like discipline agile and project structured deployment of ITIL are interesting choices to structure IT Operations internal strategy.

In theory, PerkinElmer IT has adopted a project-based approach as part of their IT strategy. Project portfolio management is in middle or high level in many aspects. There was a slight modification to the structure where the projects were brought to departments to lead. Still managed centrally but allowing project managers, that are closer to the subject matter, to run and manage their projects. This has proven to be more efficient and better received approach for the teams. There have been multiple guidelines created for example cloud strategy and IT security which will help navigate the projects according to PerkinElmer strategy centrally. Also, communication is taking place in more organized fashion. There are official forums to communicate among business stakeholders. Communication is a key piece in global environment which sounds easy but very difficult thing to do well all the time. Like in project management, Portny (2013) has given a full chapter of the basics around stakeholder communication and that is just for the basics.

Prioritization is taking place in multiple phases starting from the coming years budget planning to the initiating the project. The case company has acknowledged the importance of the prioritization. To do the right things for the business success. On the other hand, the organization has targeted efforts to streamline the technical portfolio. Retiring old systems, shutting down rarely used applications and strategic approach on the digital footprint has helped. With the continuing maintenance tasks for the old systems and targeting those systems to be retired are needed. Kiron et al. (2016) shows that in an increasingly digital world, digital transformation is not just about implementing more and better technologies. It involves digital congruence — aligning your company's culture, people, structure, and tasks. With similar thoughts Tabrizi et al. (2019) has seen successful transformations in companies where mindset and culture has been changed and focused before deciding digital tools for it. Meaning that even though the

transformation is around technology and project work it still involves people. From this we could say the transformation is not a sprint but rather long commitment for the future and your employees. If we go back to the early interviews where one of the key points was getting away from silos. I believe there is still some work left with the case organization. Most likely this is the one that needs patience and cross functional knowledge of the whole organization, rather than just from your own department.

Client operations has walked the path of digital transformation and ITIL for quite some time now. After a rocky start the pieces started to fall into place and results have been promising. As part of this department's expected tasks, it has grown to support other technologies as well which is one of the key pieces of digital transformation. We should allow technology to help and streamline our work so we can move forward on our path. As part of digital transformation mantra, there is a saying that by doing the transformation it allows the employees to do more valuable work. The saying just did not identify what is this more valuable work. I think that is something that all departments need to find out themselves through transition. I would like to think that in PerkinElmer the so called ITSC department has grown through the transition to master new endpoint technologies which has given the employees an opportunity to grow professionally. With the same amount of staff and resources, the transformation has enabled the department to create more value to PerkinElmer and career path to the employees for personal growth in their occupation. As Kane et al. (2015) highlight, employees want to work for digital leaders. Employees will be looking for the best digital opportunities and businesses will need up their game to retain and attract employees.

This thesis was successfully executed. Re-Imagining IT transformation began and delivered the project-based approach way of working to the whole IT organization. Transformation was observed closely over 12 months for the whole organization, and it was concluded with a survey to the case study department. The thesis also served well for learning purposes. Since work consists of literature part and practical execution, all details learnt in theory could be tested in real life immediately. However, the work is not over. As the literature states, digital transformation is a journey and it is always ongoing in some shape or form. An important part is the organization's capability to see the benefits of agile way of working and really implement pieces it as part of daily work. For now, it seems that the organization and the study department, client operation employees, are very pleased of the progress. The department is following approved standards which always helps in the line of business where the case company is.

What could have been done more? We could have been sharing information and training to more people about the benefits and multiple variations around this effort. Training for agile and scrum methodologies was also advertised to the organization, but I do not believe those trainings were available for the general employees rather than selected individuals.

As a next step, there could be considerations to shape departments to work more agile way on the duties not related to project work. Most of the work is coming as projects, but there are still a lot of day to day maintenance and operations to do. For these kinds of efforts, the discipline agile would suit quite well. With that, there would always be visibility and structure for this kind of work as well. That would help on resourcing and scheduling in the higher level when everything is viewed in the organization level as well as governance and documentation.

Greatest learning point for me was to get support from theory to my own thoughts. As this project and thesis progressed, it came much clearer to me what the IT senior leadership was going after. It is a shame that the information that I have received and gained through this thesis could not be shared for the organization in the beginning of the Re-Imagining IT. Best I can do from here, is to take advantage of the knowledge and use it for the benefit for the organization I represent. In the future, it will be clearer how to lead and manage global team in a changing environment. In conclusion, the topic of this work was well selected, and the execution was definitely a journey where I learned a lot from theory and from human mind. Change is imminent and with project management you can control the change.

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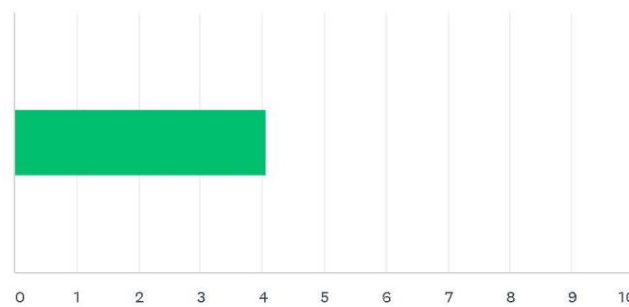
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## Survey results

### ITSC Survey

Q1 I have a clear understanding of the ITSC strategy

Answered: 37 Skipped: 0

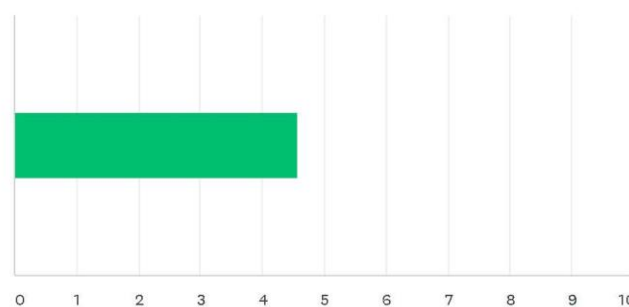


ANSWER CHOICES	AVERAGE NUMBER	TOTAL NUMBER	RESPONSES
	4	150	37
Total Respondents: 37			

### ITSC Survey

Q2 I'm supportive to the global standardisation of the processes. This helps us to function as one Team.

Answered: 37 Skipped: 0

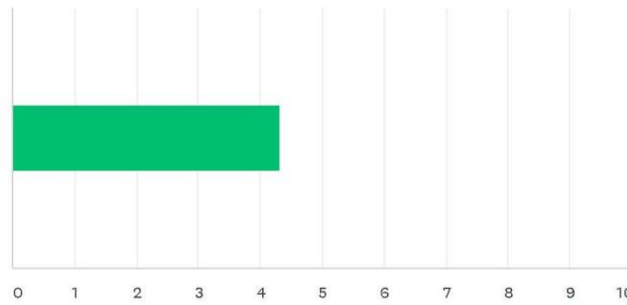


ANSWER CHOICES	AVERAGE NUMBER	TOTAL NUMBER	RESPONSES
	5	169	37
Total Respondents: 37			

ITSC Survey

Q3 Global standards helps our customers to understand our way of working

Answered: 36 Skipped: 1

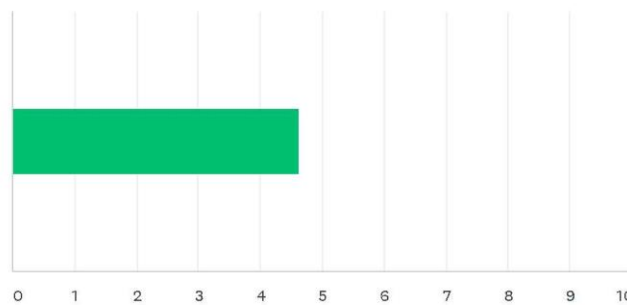


ANSWER CHOICES	AVERAGE NUMBER	TOTAL NUMBER	RESPONSES
	4	155	36
Total Respondents: 36			

ITSC Survey

Q4 I find it useful to have a single tool for communication amongst my team

Answered: 37 Skipped: 0

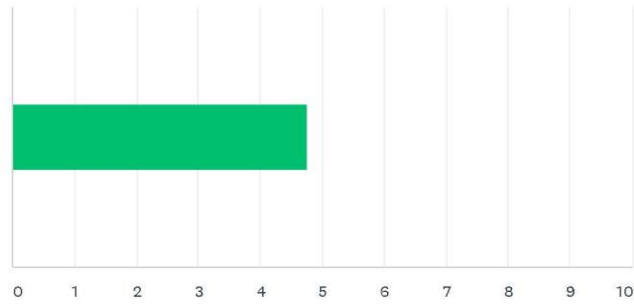


ANSWER CHOICES	AVERAGE NUMBER	TOTAL NUMBER	RESPONSES
	5	171	37
Total Respondents: 37			

## ITSC Survey

## Q5 Documentation is crucial for our line of business

Answered: 37 Skipped: 0

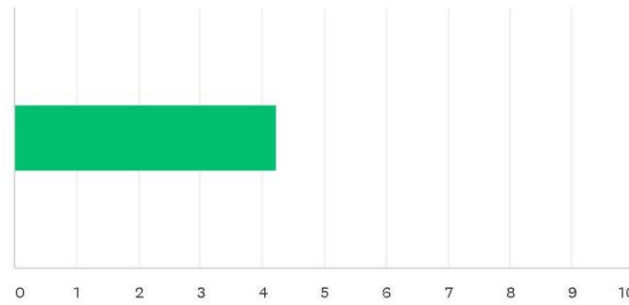


ANSWER CHOICES	AVERAGE NUMBER	TOTAL NUMBER	RESPONSES
	5	176	37
Total Respondents: 37			

## ITSC Survey

Q6 Agile way of working where applicable creates good results (ie Windows 7 upgrade, SOP documentation building, AD cleanup)

Answered: 37 Skipped: 0

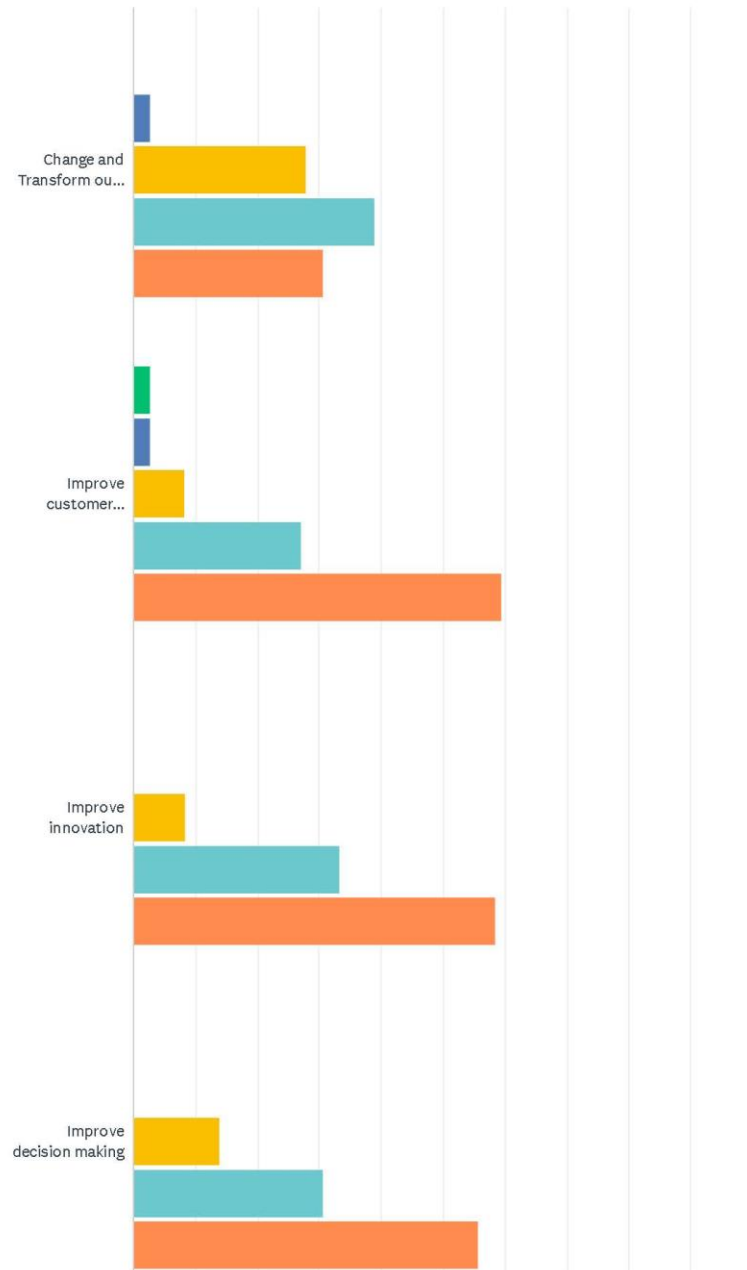


ANSWER CHOICES	AVERAGE NUMBER	TOTAL NUMBER	RESPONSES
	4	156	37
Total Respondents: 37			

ITSC Survey

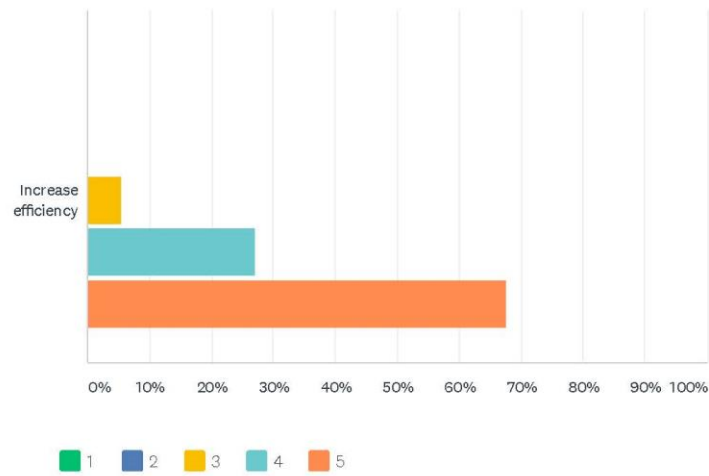
Q7 To what extent do you agree that the following are objectives of our ITSC digital strategy?

Answered: 37 Skipped: 0



7 / 14

ITSC Survey



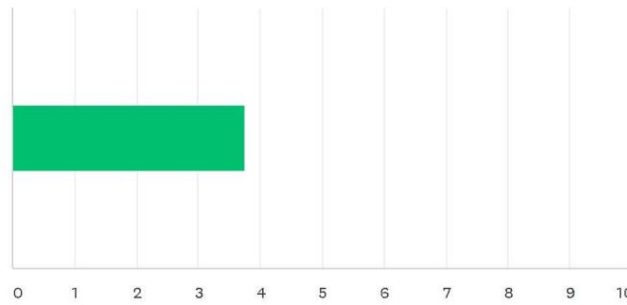
	1	2	3	4	5	TOTAL	WEIGHTED AVERAGE
Change and Transform our IT processes	0.00% 0	2.78% 1	27.78% 10	38.89% 14	30.56% 11	36	3.97
Improve customer engagement and service	2.70% 1	2.70% 1	8.11% 3	27.03% 10	59.46% 22	37	4.38
Improve innovation	0.00% 0	0.00% 0	8.33% 3	33.33% 12	58.33% 21	36	4.50
Improve decision making	0.00% 0	0.00% 0	13.89% 5	30.56% 11	55.56% 20	36	4.42
Increase efficiency	0.00% 0	0.00% 0	5.41% 2	27.03% 10	67.57% 25	37	4.62



ITSC Survey

Q8 I have better understanding of the global team now than 12 months ago

Answered: 35 Skipped: 2

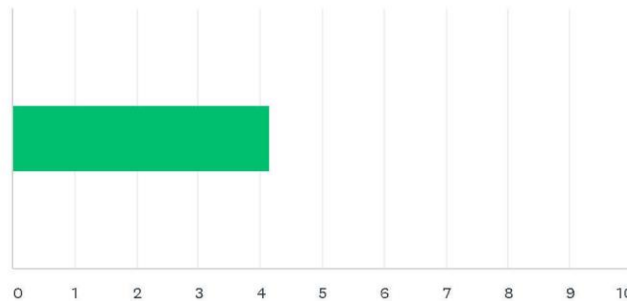


ANSWER CHOICES	AVERAGE NUMBER	TOTAL NUMBER	RESPONSES
	4	131	35
Total Respondents: 35			

ITSC Survey

Q9 Ticket first culture has helped me to manage my workload

Answered: 36 Skipped: 1

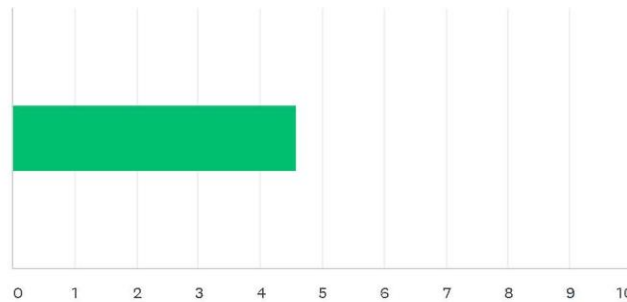


ANSWER CHOICES	AVERAGE NUMBER	TOTAL NUMBER	RESPONSES
	4	149	36
Total Respondents: 36			

ITSC Survey

Q10 Constant change in IT needs to be controlled and documented in some shape or form

Answered: 36 Skipped: 1



ANSWER CHOICES	AVERAGE NUMBER	TOTAL NUMBER	RESPONSES
	5	165	36
Total Respondents: 36			

ITSC Survey

Q11 The GITS meetings are informative and beneficial. Here's how I think they can be improved.

Answered: 25 Skipped: 12

ITSC Survey

Q12 What is the single most valuable change that you would suggest to benefit you in your day to day tasks.

Answered: 29 Skipped: 8

ITSC Survey

Q13 What is the single most valuable change that you would suggest to benefit your customers.

Answered: 25 Skipped: 12