

# Tackling Tech

Top IT priorities  
and how to approach them

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## Introduction

IT management nowadays is like walking a tightrope; a balance between keeping the lights on and moving forward. What should be IT managers' top priorities for the coming years and how can they start acting on them?

We often see IT managers struggle with innovation and technological development. They want to move forward but find themselves stuck in the status quo: non-scalable legacy, strict contracts, and imperfect customized systems.

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To complicate matters further, the relationship between business and IT is often no better than that of a daughter and stepmom. Many IT managers dream of a brighter future, and thus need to find a way to break through this status quo.

Yet, this is easier said than done, as innovation and technological development remain challenging topics. Especially, for organizations with considerable IT legacy. We like to offer our support by sharing our knowledge on this subject.

In this article, we identify the top IT priorities and provide recommendations how to tackle them.

## Identifying top IT priorities

We believe IT priorities should be considered from three different perspectives:

- Customer perspective
- Process perspective
- Management perspective

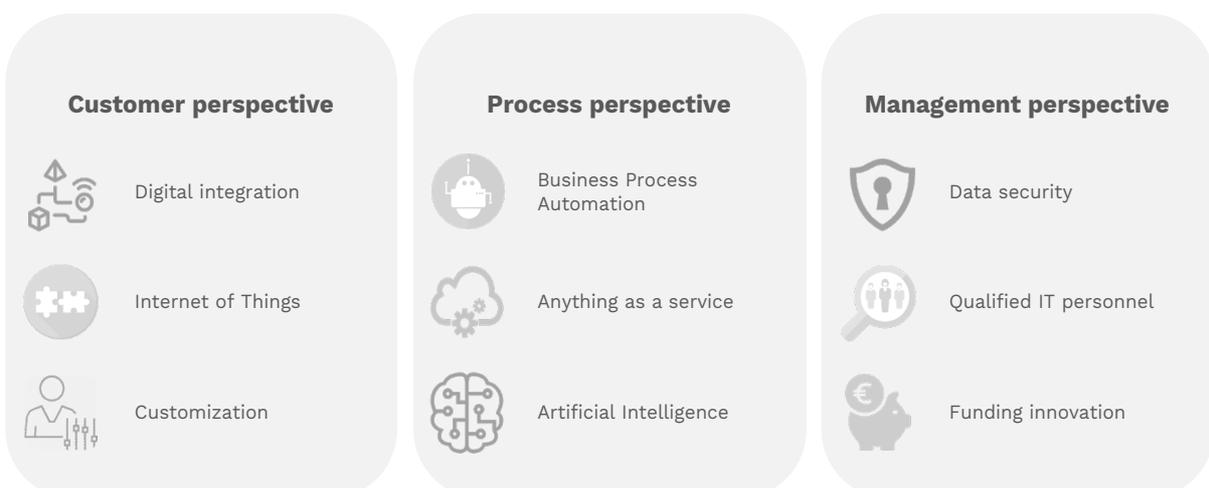
In the next section, we highlight each perspective separately. For each perspective, we have identified three priorities, which we examine more in-depth.

### Customer perspective

Customer value is the benefit someone believes to receive from a product or service. Customers can both be internal or external.

IT is of great value when an organization is able to deliver the specific feature or service customers are longing for. However, many organizations struggle to deliver increasing value to the customer.

From a customer perspective, we have identified three opportunities that should be high on the priority list of every IT manager: Digital integration, Internet of Things and Customization.





### **Digital integration**

Every household and organization uses multiple devices and applications. Imagine how easy life would be if all these systems were integrated: you could read and adjust all your digital information with any device you like! This is commonly referred to as digital integration.

An example of digital integration is an automatic computer lock when a connected smartphone is no longer in its vicinity. Or single sign-on, which makes the need of different passwords for connected devices and applications redundant.

It may seem old school to not be able to collaborate and communicate from every device and every place you prefer at any time you want? The reality is, that this is still the case in many organizations.

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The implementation of digital integration is challenging for organizations with considerable IT legacy; the integration of legacy systems is difficult and costly, if possible at all.

### **Internet of Things (IoT)**

IoT is about connecting everyday objects via the internet, enabling them to send and receive data. There are a number of

developments which are enabling IoT at this moment. For instance, decreasing connection cost, the growing number of devices with sensors build into it.

The potential value of IoT is enormous. Especially, when connected devices are able to communicate with each other and integrate with multiple systems and applications. IoT can for example show available work spots and meetings rooms. And imagine the added value a nurse can deliver to her patients when she does not have to walk to the fridge every hour to check if its temperature is in line with protocol, as her smartphone identifies abnormalities automatically.

Some organizations might still have doubts about the value of IoT. Others clearly see the potential value, but find the application difficult. Challenging indeed about the application of IoT is that certain prerequisites need to be in place, like proper storage and structuring of data, as well as the ability to connect applications with one another.

### **Customization**

Employees develop preferences in their personal lives and want to keep the same habits and tools at work. Therefore, they want digital services offered that meet their specific preferences. Unfortunately, many organization still offer standardized tools and services with identical content and design. Reasons for this are overly strict security policies, outdated systems and an old-fashioned mind-set.

A way to improve internal customer value is a Choose/Bring Your Own Device policy. Customization can also be done by setting up systems in a way they identify users and deliver them the content, experience, or functionality that matches their role or customer profile. This can be done at the individual level (e.g., Amazon's suggestions based on past browsing and purchase

history), or at group or audience level (e.g., an intranet displaying information specific to those in a certain location or a certain role, such as a job function).

Value for both the customer as well as the organization is provided this way. Customers experience more freedom and are serviced in a way that suits their needs and preferences. Moreover, IT managers are likely to be less confronted with shadow IT, as customers don't feel the need to circumvent them.



### Process perspective

Organizations use dozens of processes every day. However, many of these processes are inefficient or lack the proper tooling to be effective. Unhappy customers, stressed colleagues, missed deadlines, and increased costs are just some of the problems that can arise when using out-dated or dysfunctional processes. Processes exist to streamline the way people work. That's why it is so important to stay up to date and improve processes when they are not working efficiently.

From a process perspective we have also identified three opportunities to add to the list of priorities, which are: Robotic Process Automation (RPA), Anything as a Service (XaaS) and Artificial Intelligence.

#### Robotic Process Automation (RPA)

RPA is the technology-enabled automation of business processes. It is

part of Business Process Automation which focusses more on improving the workflow in general. RPA is a process of implementing software applications to automate routine business tasks. Automating such tasks leads to increased efficiency and operational productivity of an organization. Employees simply have more time to do productive tasks that require critical thinking or a human touch. While it might be expensive to implement automated processes in the beginning, in the long run it will cut costs and in turn increase profitability.

RPA can be very useful in supporting employees with daily tasks. However, it can also be a factor in the replacement of employee positions. To help ensure the impact of automated software on employees is largely beneficial, it is important to consider how employees can be trained for other positions that are not controlled by RPA software.

#### Anything as a Service (XaaS)

Our society has become more service-oriented over the past decades. Whereas we used to primarily buy products, we are now more likely to pay for a short-term licence or to pay per use (e.g. Netflix, Spotify, Car2Go, Blendle). However, many IT department still struggle with long-term IT contracts, with (semi) fixed volumes and services that are hard to adjust.

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In general, XaaS is a term that refers to the delivery of anything as a service. It recognizes the large number of products, tools and technologies that vendors now offer to users as a service over a network, typically the internet, instead of on-site within an organization.

Organizations often choose XaaS, because using the as-a-service model simplifies IT deployments and cuts costs. XaaS also means that you can pick and choose the right services as and when you need them. Moreover, by having the flexibility of a pay-per-use pricing model, you can rapidly scale your solutions up or down to adapt to current business needs. Finally, XaaS makes it easy to access new cutting-edge technology as well as deploy it quickly to stay ahead of competition.

There are already many examples of XaaS, but the most commonly used are the three general cloud computing models: Software as a Service (SaaS), Platform as a Service (PaaS) and Infrastructure as a Service (IaaS). These three services are used more and more by organizations, however there are many more XaaS that could even further improve the business.



### **Artificial Intelligence (AI)**

Many aspects of AI are not entirely new. Yet, with the increasing availability of relatively cheap and more advanced computing power AI is becoming far more accessible. The majority of organizations are at very early stages of adoption. However, there is a growing number of examples where AI is being used to optimize processes within organizations. Where RPA is more static, AI takes process automation to a next level by implementing a dynamic, self-learning environment.

AI has often been envisaged in a super-

smart humanoid robotic form. In practice it's more commonly implemented as behind-the-scenes algorithm that can process 'big' data to accomplish relatively ordinary tasks. Most modern AI applications are enabled through a discipline known as 'machine learning'. Machine learning is a core part of AI. It is based around the idea that machines can detect patterns in data and adjust their actions according to these patterns.

Implementing AI is extremely challenging for IT departments with limited budgets and scarce specialized knowledge. Therefore, for most organizations this seems a bridge too far and so it is logical to first focus on BPA.

### **Management perspective**

As an IT manager you have a lot of balls juggling in the air. As discussed before, you need to stay up-to-speed with the latest developments to keep your customers satisfied and deliver your services efficiently and effectively. Yet, at the same time you also have to manage a department and make sure the whole operation runs smooth and safe.

From a management perspective, we have also identified three priorities which need to be addressed in the near future, which are: Data security, access to qualified IT personnel and funding innovation.

### **Data security**

The importance of data for organizations has been a hot topic for quite some time. Data security, however, has been overlooked until recently. Though this is changing; with the General Data Protection Regulation now in play within the EU, there is growing recognition organizations must improve control over their data.

Simply put, data security concerns the protection of data from accidental or intentional but unauthorised disclosure

(data confidentiality), modification (data integrity) or destruction (data availability).

In many organizations the IT department is saddled with the responsibility of digital data protection. Therefore, they need to become familiar with new technologies such as big data encryption, tokenization, identity and access management tooling, and guiding principles like security and privacy by design.

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Data security, however, depends as much on people as on technology. Breaches are nearly always caused by multiple factors and people are practically always one of them. It is therefore important organizations also acknowledge the human-factor involved, by creating security awareness and a feeling of shared responsibility.



### **Qualified IT personnel**

In the Netherlands approximately 25% of organizations within the IT sector is faced with staffing problems. And also, in other European countries the demand for qualified personnel is far above current market supply. Organizations find themselves in a war for talent: they face an increasingly competitive landscape for recruiting and retaining talented employees.

This shortage will not disappear overnight, and more drastic measures need to be taken to fill this gap. A stronger collaboration with schools and universities to both attract and instruct new students is vital. Moreover, investing in re-education of own employees and external candidates will be necessary. Additionally, organizations may need to look for talent on the global market. This requires close partnership with HR, serious investments, and (long-term) planning. This will definitely be a challenge that tops the future agenda - especially for organizations that aren't the most popular IT employers to begin with.

### **Funding innovation**

In addition to finding the right people, IT managers also need to gather the financial means to keep up with the pace of innovation. Recent figures suggest IT budgets are expected to stabilize and, in many cases, grow in 2018. Good news! But will these extra resources be allocated to innovation?

A recent survey by research firm Vanson Bourne including 900 IT decision makers across the globe found that 77% believe the over-spending on maintaining and running current IT systems is the biggest blocker to achieving innovation in their organization. This is further supported by figures of Gartner which show that organization invest about 90% of their IT budget in 'keeping the lights on' and incremental innovation, while only 10% is allocated to transformative innovation.

Consequently, funding innovation is a challenging balancing act. Management needs to reduce costs involved in keeping enterprise systems and services up and running and find clever (cheaper!) ways to stimulate innovation. For instance by blending service with innovation, in which case innovation becomes part of the

contracted service, like you often see with XaaS offerings.



## Stop thinking, start doing

With so many different priorities and a daily operation to run, most organizations may find themselves at their wits end. If you still struggle to fix the basics, how do you find the time and focus to start delivering the future?

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In our work with clients, we found the following approach to be very successful:

- (1) **Decide on your top focus points.** Create an overview of the most important outcomes the organization wants to achieve the coming years. Be hard on yourself and really focus on what is most important to your organization. Stop talking about all other opportunities that may be out there. This is a waste of time.
- (2) **Prioritize your priorities.** Map your priorities on a roadmap. Everything is important, but focus on what really needs to be done in the next coming months. Set strict Work in Progress Limits and finish before starting.
- (3) **Appoint a priority owner to each priority.** Make sure that one person feels fully responsible for the success of this item, and make sure that this

owner has sufficient time for this priority. Items with all board members as owners, or items belonging to owners who have a lot of priorities already are not likely to be successful.

- (4) **Assemble a dedicated change team for each priority.** Everybody in the organization can help with improvements, but innovation is not going to work if you keep this within your current departments/teams, as running the business and keeping the basics in place will always win.
- (5) **Start small and independent.** The most successful learnings so far are from organizations that have created innovation labs - or perhaps even better, learning labs. Make sure these teams can deliver end to end value; this means all required expertise has to be available within the team. These labs are not there just to develop new features, but also to experiment with and experience how business models can be made future-proof. This can only be done when all department representatives are able to transcend their own functional perspectives.
- (6) **Start smart.** Start with (at least) one priority that is expected to increase customer value. Happy customers means smoother collaboration in the future and maybe also more funding from the organization. And start with one initiative that enables smoother processes, saving recurrent money now, means more money for the change teams for innovation.
- (7) **Start fast.** Stop thinking start doing. Fail fast and learn even faster. Since these items are about innovation, use lean start up, agile aspects, hypothesis-based thinking and short delivery cycles with regular feedback moments. Make sure you focus on improving your services, as well as the way of working.
- (8) **Lastly, have fun and enjoy the ride!**