



# Digitization offers plenty of opportunities

This is how your organization  
can keep up with the pace

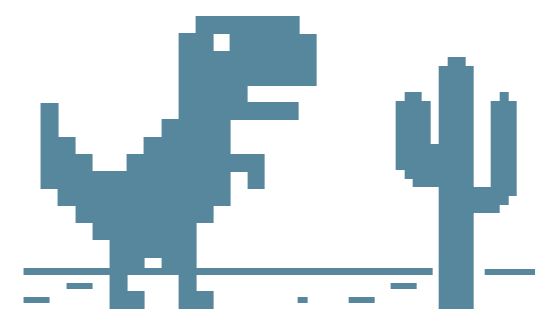
LIFELINE

# 1. How do you give 2022 a positive twist?

**COVID-19 has changed the world at lightning speed. Organizations and companies must adapt faster than ever. In tomorrow's world, "normal" no longer exists.**

We must all try to accept that change is the only constant. That one wave of change is followed by the next tsunami of change in no time. And anyone who believes that this crisis is an era in which we are experiencing one huge transformation is mistaken. Because something that works today may get in our way tomorrow. That is why it is so difficult to decide on investments that force your organization to follow a certain path without being able to change course along the way. Organizations that realize that the next big challenge lies in flexibility are tomorrow's winners. They will have a head start on others.

And this is where the story takes a positive turn. The better you understand what changes are coming your way, the faster you can react and the better equipped you and your organization will be to deal with them. That is why we are happy to share various insights with you in this e-book. Because you can only understand the new rules with the right knowledge. Only with knowledge does one learn to manage uncertainty in the organization, and can the job of digital transformation be done.



"It is not the strongest or the most intelligent that survives. It is the one that is most adaptable to change."

Charles Darwin

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# 2. The top 10 trends you can't afford to miss

Gartner research 2020

**No matter how great the digitally-driven changes of the last few decades have been, when viewed properly, only a few industries have really been changed by digitization.**

In most industries, digitization has only touched the surface of what real change could be. It is always amazing to see the extent to which operations in complex value chains still rely on Excel sheets, manual work, and low-quality data sets. But new tools and technologies like machine learning, IoT, and distributed computing have proven their potential impact and economic viability in recent years. Not only investors, consultants, and other prophets talk

about them, they work and are readily available. And they are far from reaching their limit. We are on the eve of a digital acceleration. Here are ten trends that will give you insight.

"Make sure you're not just keeping up with changes, but staying one step ahead of them"

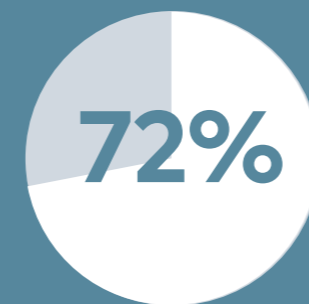
## 1. Remote work shifts digital transformation priorities

While remote work has been on the rise for several years, this year's pandemic has dramatically changed and accelerated the course of this trend. Gartner states that 74% of companies will increase their adoption of remote work. In addition, a World Economic Forum study found that 72% of the global workforce of the companies surveyed currently work remotely and that the number of employees permanently working from home will double in 2022 (compared to remote working in the pre-corona era).

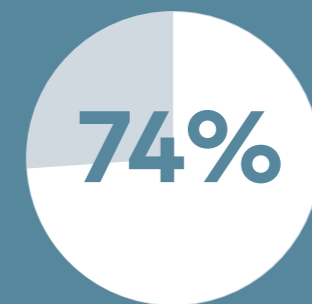
This is partly due to the fact that since employees started working remotely, nearly

half of the companies surveyed stated that productivity has increased. Moreover, it is not clear how long the pandemic will last and when the next event will occur. We don't know what the "new normal" will look like.

This has major ramifications for organizations' digital transformation efforts, as they must invest in making remote working as secure, convenient, and efficient as possible for their employees. This makes remote working one of the most important trends of 2022, changing priorities and influencing many other trends in the coming year.



of the global workforce now works from home



of companies will switch to working remotely.

## 2. Rethinking cybersecurity strategies for remote working

With employees spread across multiple locations, it's harder to manage document and information security. The growing number of locations and networks has also increased the number of targets, and hackers have taken advantage of this. The number of cyber-attacks and data breaches has increased worldwide.

It goes without saying that it is extremely important for organizations to keep their documents and data safe. That is why organizations are massively upgrading their security strategies and extending cybersecurity to home networks and mobile devices. The field of cybersecurity will change in 2022, with more emphasis not only on cybersecurity tools, policies, and measures, but also on educating employees on how to work safely from home. Organizations will continue to work with so-called VPN connections and expand them so that colleagues can work remotely with company data in a secure manner.



## 3. Employees are the core

Employees are the core of a company. There will be more initiatives in 2022 to improve employees' experiences, especially their remote experiences. As a result of the COVID-19 pandemic, employees were forced to work from home. This resulted in challenges that some had not experienced before. According to a study by the Knowledge Institute for Mobility Policy (KiM), people struggle with the social aspect of their work, loneliness, no work-life balance, and a lack of concentration.

Given that with remote working, employees do not go anywhere physically and are

not present, extra attention will be paid to employees' experiences (at a distance) in 2022. This attention should ensure that employees not only stay motivated, but are also connected to the organization and the organizational culture. This will be reflected in increased investment in communication tools for work and social purposes as well as an increase in culture-boosting and team-building activities. This includes sending gifts and goodies to employees' homes and having them participate in fun challenges and online events, such as on-line pub quizzes.

## 4. Accelerated digital transformation efforts

COVID-19 rocked the foundations of many organizations, bringing with it the realization that organizations must be more versatile in order to respond to change and survive. In addition to the pandemic, which made it clear that major changes can happen quickly, changes in today's digital world are occurring in rapid succession. To keep up, more organizations will accelerate their digital transformation efforts in 2022 to

enable greater flexibility and versatility. To do this, hyperautomation is booming. Organizations automate whatever they can in order to increase the innovation rate. Organizations are also expected to invest more in scenario planning and risk assessment tools so that they can better respond to and adapt to changes in the future and (hopefully) never again face surprises like COVID-19.

## 5. Contactless technology

In 2022, there will be a greater need for technology that allows people to avoid face-to-face contact or that no longer requires them to be physically present at a particular location.

This goes beyond online video conferencing tools. It applies to both internal and external situations, as well as to contact between people and between individuals or teams performing tasks. For example, organizations are investing in technology to control certain elements in the office remotely. People are becoming less dependent on their location to perform work or connect with others.



## 6. 5G goes mainstream

5G caused quite a commotion in the past year. If the huge increase in remote working taught us anything in the past year, it is the importance of connectivity. Employees need to be able to connect with colleagues and other parties to work re-

motely. They need to be connected from any location and any device and can't afford not to be. This is why 5G is more important than ever and will be embraced more widely in the coming years.



## 7. Guided by data (analysis)

To survive as a digital organization, you must have relevant and reliable data. This data can help you improve virtually all areas of the organization: from customer service, your products and services to internal and external communications. There is so much data available today that it can be challenging to separate the wheat from the chaff. A Customer Data Platform

(CDP) will help your organization organize data and ensure that this data is valuable. Organizations will invest more in CDPs in 2022, also to focus more on data privacy. The focus in 2022 will be on collecting relevant data and organizing it so that organizations can make more data-driven decisions and deliver more value to all stakeholders.

## 8. Shift to a hybrid cloud infrastructure

The COVID-19 pandemic showed organizations that they need to be able to move investments to the cloud. As a result, more organizations are moving to a hybrid cloud in 2022. Many organizations use SaaS applications and on-premise solutions. To keep data secure and available to everyone in the organization, it is important that organizations use a cloud that is secure and

easy to use. Hybrid clouds are the perfect balance to help organizations store data. Major vendors like Azure, Google, IBM, and Oracle are already anticipating this increase. They have made large investments to create tools that allow for easy connectivity between data centers, the cloud, and on-premise solutions.

## 9. Expansion of the omnichannel experience

In these uncertain times, customers may hold the key to an organization's success or even its survival. But customers no longer only make choices based on a good product or service; their experience is an even more important factor in their decision-making. This realization will increase the focus on the customer experience in 2022. Organizations will pay more attention to increasing customer satisfaction and loyalty by optimizing their omnichannel experience. This

means spending more time, effort, and budget on aligning all the channels a customer can use to interact with an organization in order to provide a seamless and personalized experience, regardless of how this interaction takes place. PwC research shows that the number of companies investing in the omnichannel experience has already risen from 20% to 80% and is set to increase even more in 2022.

## 10. The digital workplace, from concept to product category

Over the years, the digital workplace was seen as a concept. Something that vaguely existed at a distance for many, but was not actually a tangible product that you could purchase. However, from our many conversations with customers and partners, we can conclude that the digital workplace is

evolving from a concept to a product category in the collective mind. This can be partly attributed to large organizations like Google and Citrix that focus on this area and offer their own digital workplaces (Google Workspace and Citrix Workspace).

### 3. Digital transformation comes down to people

Over the past few years, one term invariably popped up in boardrooms, management articles, and books: digital transformation. It was often placed in a technological context. Yet the digitization of (business) processes, services, and products is primarily done by people, says Menno Lanting, an expert on the impact of the rapidly changing world on innovation, organizations, and leadership.

Eurofiber spoke with Menno Lanting of the Netherlands. He is an expert and the author of management books on digital transformation. He talked about the role of people in the playing field of digital transformation.

According to Menno Lanting - author of several bestselling management books such as Connect and The Disruption Paradox - a solid digital infrastructure is the foundation on which digitalization is built. Yet it is the human factor that is all-important for the success of digital transformation. Especially at the top of the organization: without vision and decisiveness on the part of the management, digital transformation gets bogged down. With all the negative consequences this entails.

#### "Many organizations are still at the beginning"

**Eurofiber:** Where do we currently stand when it comes to digital transformation?

**Menno Lanting:** In all honesty, I think a lot of organizations are still at the beginning of that process. The corona pandemic demonstrated that. All at once, existing technologies and applications had to be adopted without delay. From video conferencing to online shopping, it's all peaking now. But the majority of organizations are still some steps away from digital transformation. Many of the examples that get press attention are really just digital catch-up efforts. At the risk that your organization starts to digi-

tize existing imperfections, which ultimately leaves it much further from the goal.

Digitization makes many organizations' inabilities very transparent. You actually have to look at how you would set up the organization and the processes if you started today, with all the digital tools at your disposal. That is also the handicap of many organizations: they have a successful past, which makes it more difficult for them to prepare for the new reality. Because then the urgency is also lacking to a significant extent.'

**Eurofiber:** What is striking is that the various industrial revolutions have all basically revolved around the replacement of muscle power. The digital transformation, however, seems to be slowly but surely ushering in the replacement of human brainpower. Do you see any of that in practice?

**Menno Lanting:** The first effects of this are already visible. Large banks and insurers have been digitizing what they call 'low-level thinking' for some time. People used to have to key in all kinds of insurance policy data: that has now largely been replaced by software. The same applies to account-



“We don't yet know what society will look like in 10 to 20 years due to digitalization.”

ancy and the legal profession, for example. This is always at the expense of jobs, office space and other matters such as leased cars. From the moment we are born, we strive to minimize our efforts with a maximum result. So, in that respect, the digital transformation isn't really something new.

**Eurofiber:** In my opinion, digitization requires human adjustments. For example, of leadership styles.

**Menno Lanting:** I'll go along with that. The interesting thing is that we don't yet know what society will look like in 10 to 20 years because of digitalization. When the internet came along, no one knew that it would bring about the developments we are looking at now. This makes it difficult for organizations to build strategies that take today's rapid technological developments into account. As a leader, you are forced to give direction to an organization without

knowing exactly which way it will all go. You also see that leaders often have insufficient knowledge about digitization.

And that has a paralyzing effect. If you lack that kind of knowledge, then it's a good idea to get it from external specialists, such as Eurofiber when it concerns digital infrastructure. The success of a digital transformation stands or falls with the vision and decisiveness of the leaders in the organization.

In a digital transformation, there is rarely a lack of initiatives. The problem lies in the fact that there is insufficient vision of the future added value that the organization can offer. Without directional leadership, thousands of flowers bloom, but they all die just as quickly.

### “Don't look to Big Tech”

**Frenk Storm:** That seems - to put it mildly - like quite a challenge. Who, in your opinion, succeeds in showing such leadership? Is it the well-known examples like Google and Amazon?

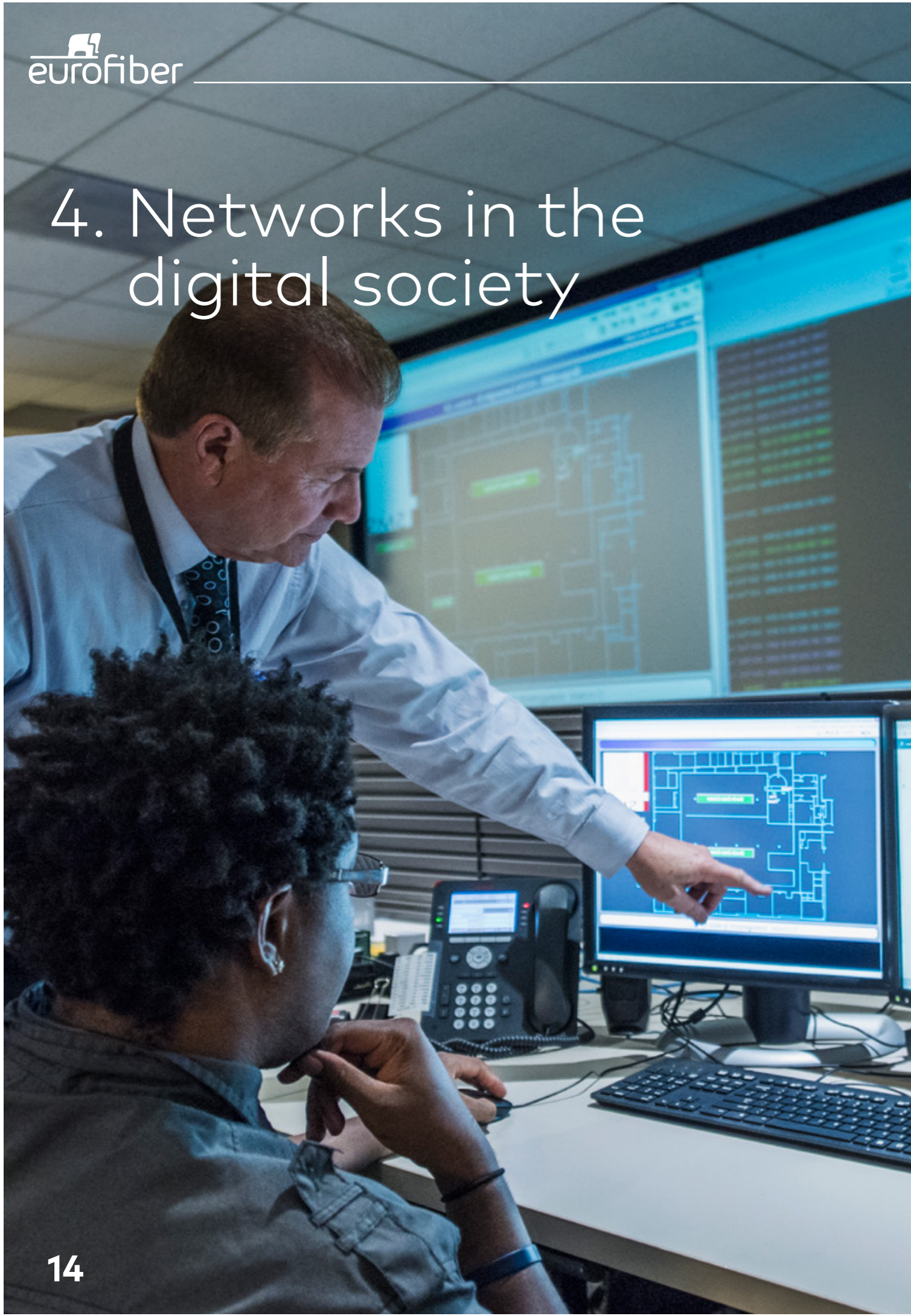
**Menno Lanting:** The Big Tech companies are an outside category. There is no point in comparing yourself to Google or Amazon. Perhaps, as an organization, you should actually ask if you want to be in the technological vanguard. If you look at very innovative companies, you will see that they leave the technology pioneering to the Googles of this world.

Instead, they choose to make the organization as agile and innovative as possible. Because then it doesn't matter so much which technology becomes relevant. As a result, they know how to keep up with developments and changing market demands re-

gardless of the technology. This is largely a question of personal leadership, mentality, a company culture that is open to this and an organization that is equipped for it. Philips is a good example of this. The CEO has transformed the company from a consumer electronics manufacturer to a company primarily active in healthcare. And one that doesn't just sell hardware. Philips is now focusing on software, data, and services.

That was a courageous move by the CEO, and he has also managed to gather the right people around him to make that strategy work. Philips is one of the few examples of an organization that has undergone a successful digital transformation. Thanks to a leader who managed to link a clear digital vision to decisiveness. This shows that digital transformation largely comes down to people.

## 4. Networks in the digital society



If you look around, you will see that governments and organizations are already taking full advantage of digital technology. Just think of the introduction of digital learning and testing in education. Or consider home automation that offers the elderly remote care so that they can continue to live independently in a safe manner for longer. Smart City projects, for more livable, urban environments, are sprouting up in major cities all over the world. Digital transformation is now a reality.

### 31 billion connected devices

Organizations may be able to make do with the available capacity for the time being, but one thing is sure: the demand for capacity will increase rapidly in all sectors in the coming years. A major reason for this is autonomous devices: the Internet of Things (IoT). According to forecasts, there will be as many as 31 billion devices connected to the Internet worldwide by the end of 2020. These devices all collect data that they transport over the internet to the cloud.

### Fast network

With all these developments, the need for a strong foundation in the form of a solid network is growing. Fiber optic technology plays a crucial role in this. The definition of a fast network is that it can transport a lot

of data in a short period of time with low delays (latency) on connections so that the data arrives at its destination with the least possible delay. The maximum internet speed that is currently possible over fiber optic is already extremely high. This speed will increase many times over in the future. That's important if we want to take full advantage of all the digitization opportunities in the future.

### Reliable network

In addition to speed, reliability is essential for a network in order to achieve far-reaching digitalization. In critical environments, such as a hospital or an educational institution, the primary process immediately comes to a halt if the network degrades, or even worse, fails.



## "One trend is self-driving cars"

But reliable availability is also crucial in small and medium-sized enterprises, industry, government services or financial services. For this reason, network suppliers are increasingly incorporating redundancy: organizations purchase two separate connections in order to be able to switch seamlessly from one to the other in the event of a disaster.

### Longer-term trends

One example of a longer-term development that has already started is self-driving cars. When they can drive entirely autonomously, it will have consequences for many companies' business models. Organizations are already discussing this, particularly the impact it will have on their organization and customers.

This extends from the government to insurance companies and large hospitals. They plan for the longer term, up to 15 years. In these time windows, such trends are important things to include.



"Fiber optics is the ideal transport medium and also offers the necessary flexibility"

### Connectivity requirements

Considering that such a vehicle generates approximately 4 to 30 terabytes of data per day, it should come as no surprise that the connectivity requirements placed on the underlying infrastructure must be optimal. Much of this data travels through the mobile networks and fixed fiber optic

network infrastructure to data centers. Such as the data centers of the central government, where traffic flows are analyzed in real-time, and certain actions can be taken. A stable, secure, and future-proof network infrastructure is an absolute must for transmitting this enormous amount of

data from A to B as quickly as possible. Fiber optics is the ideal transport medium for this and also offers the necessary flexibility. Our customers are already taking this into account in their strategic plans for the future.

## 5. The cloud: now and in the future

**Fast, reliable, and secure networks have enabled the rise of the cloud. The cloud is the basis for efficiently deploying large amounts of (big) data. Combined with high-quality connections, the cloud provides access to data and computing power, including Artificial Intelligence (AI) and Machine Learning (ML), anywhere and anytime.**

The cloud is currently the foundation for technological innovation. More and more government organizations, schools, hospitals, and businesses are using cloud solutions. The cloud is also propelling a growing need to transport large amounts of data in real-time.

### **Secure connection as basis for cloud strategy**

Each cloud provider offers a different format and sets its own conditions for redundancy, for example. Organizations can quickly perceive the multicloud or hybrid cloud as complex and challenging. Lack of insight into the costs of use, uncertainty about the control of availability and performance, and possible integration problems with existing IT processes and systems are the reasons for this.

This is why some organizations prefer public cloud solutions via the public internet. However, this form of easy access also entails risks, especially when transmitting and accessing privacy-sensitive data. A secure cloud connection is essential for many organizations and forms the basis of any cloud strategy.

### **Innovations**

Today's cloud offers the opportunity to adopt new, innovative applications and technologies quickly. Because many organizations have switched to 'Infrastructure as a Service' (IaaS), they have enormous amounts of data in the cloud. They want to use this data as quickly as possible, easily and cost-efficiently.

For example, by using this big data for advanced data analytics and AI applications. This enables agencies to make better decisions and respond more quickly to current developments. Without the availability of such applications in the cloud, this would be almost impossible, or at the very least difficult, time-consuming, and very expensive. Software for data analytics and AI requires an enormous amount of computing power. Until recently, this was only accessible to the very largest organizations. With the advent of cloud applications, this has suddenly become accessible to many different organizations.

### **Past the hype stage**

According to Gartner, the cloud is no longer a hype. Platform as a Service (PaaS), Infrastructure as a Service (IaaS) and Software as a Service (SaaS) are all actually providing added value. Gartner's Interactive Hype Cycle also shows that Hybrid Cloud (a mix of private and public cloud services) is on the rise. Organizations and companies now have a clear idea of how to apply Hybrid Cloud.

# "The next era of cloud computing"

## Distributed cloud

The distributed cloud refers to the distribution of public cloud services to locations outside the physical data centers of the cloud provider but are still managed by the provider. The evolution from a centralized public cloud to a distributed public cloud has ushered in a new era of cloud computing. It also enables providers to deliver on the promises of a hybrid cloud. This system combines external services from a provider with internal services run on-site.

## Eurofiber Cloud Proposition

At Eurofiber, we are working on a Eurofiber Cloud Proposition: we help clients to transition to the cloud. We do this by starting with the basics: an open, secure, reliable, and future-proof network. The finely-meshed Eurofiber network grows by an average of 40 km every week. The most important cloud providers and virtually all Belgian data centers are connected to our network.

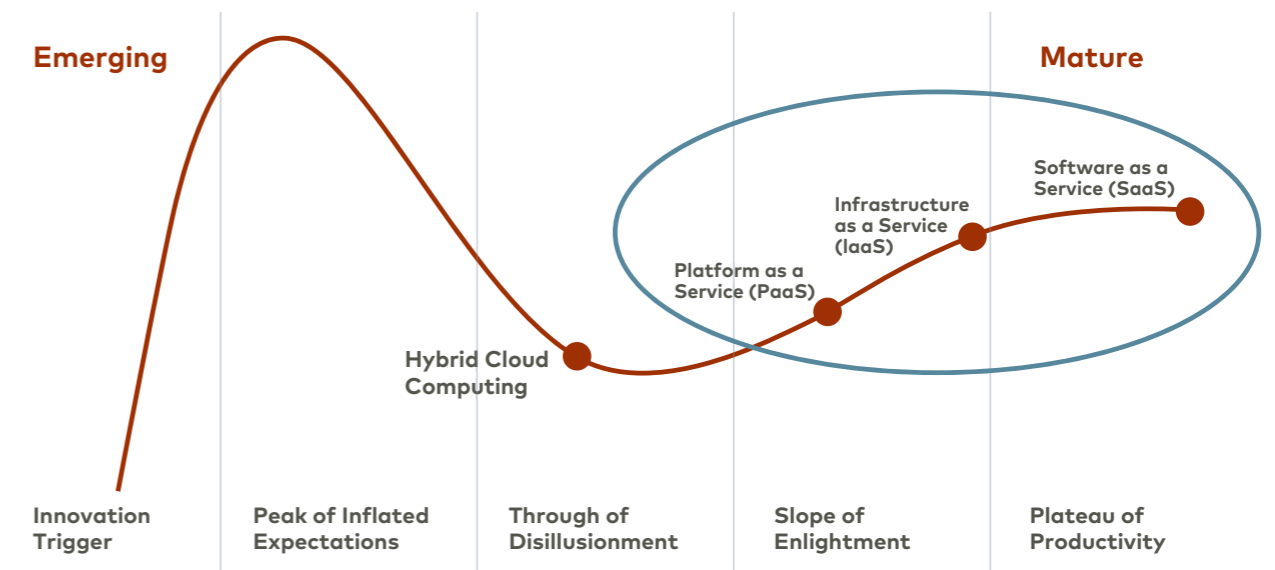
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## Hybrid cloud

A hybrid cloud, also called multicloud, consists of one or more private clouds running on their own hardware in a data center or on servers purchased from a cloud provider.

A hybrid cloud always includes one or more public clouds (e.g. Amazon Web Services, Google Cloud, Microsoft Azure, or Oracle Cloud). This cloud solution provides the ability to distribute workloads and move applications and data between private and public clouds.

Gartner: Interactive Hype Cycle



## SaaS

Software as a service (SaaS) is software that is offered as an online service. The customer does not have to purchase the software; they simply sign up for a subscription per month and per user. The SaaS provider takes care of the installation, maintenance, and management (including updates). Users usually access the software over the internet from the SaaS provider. For privacy-sensitive information, organizations are increasingly choosing an alternative that avoids the public internet.

## IaaS

With Infrastructure as a Service (IaaS), the infrastructure is offered virtually. A major advantage is that an organization does not have to purchase and manage its own servers, network equipment, storage, workstations, and virtualization. Scalability is also a big advantage, especially when demand changes quickly and shows significant peaks. After all, the customer only pays for what they actually use. A good network connection between the user locations and the IaaS environment is crucial. The internet is often not sufficient for such an application, and IT decision-makers choose a private connection or network to ensure continuity.

## PaaS

Platform as a Service (PaaS) provides a development platform as a service. Organizations can use it to develop, run and manage applications. The cloud provider takes care of building and maintaining the infrastructure, including the runtime, middleware, and operating system.

## 6. Fiber optic: ins & outs

**Nowadays, people want to be accessible at all times and everywhere. Connectivity has become a basic need and the foundation for digital Belgium. Governments, health-care institutions, education, and businesses: never before has a reliable connection been as important as it is today.**

Examples include working from home, the virtual classroom, remote care, and Smart Cities. The quality, capacity, speed, and up-time of these connections are increasing. After all, you don't want any hiccups or delays (latency) in the transport of this crucial data.

### High-quality fiber optic connections

Connectivity will always be a combination of wireless and fixed connections. A fiber optic connection can transport unlimited amounts of data to the other side of the world in a

fraction of a second. No form of transport can compete with that. Masts for mobile phone and internet traffic are connected via high-quality fiber optic connections. In the near future, more and more wireless antennas will be connected to a fiber optic network so that 100 percent reliable coverage will be achieved in due course. Guaranteed coverage is a hard requirement for the self-driving car, among other things. After all, a dodgy connection can have disastrous consequences.

### More bandwidth, higher speeds

Fiber optic bandwidth and speeds are going to increase dramatically in the coming years. One of the techniques now being developed is hollow fiber. The biggest gain here is not in the fiber optic, but in the method of exposure.

With hollow fiber, it is possible to send two weeks' worth of non-stop HD video images from Brussels to Madrid within a fraction of a second.

"Hollow fiber, even faster speeds"

Such speeds were unthinkable five years ago. Try to imagine what bandwidths and speeds will be achievable ten years from now.

### Self-learning, more secure networks

Technology trends such as Artificial Intelligence (AI) and Machine Learning (ML) are having an effect on infrastructure. With these techniques, your bandwidth automatically adjusts itself to the message you want to send. The network learns how to send a message in the fastest and most efficient manner. Another innovation is the role of data centers.

They are turning into central control points with intelligent applications to manage data remotely. The geographically dispersed data form centrally accessible, virtual databases. This also increases security.

**Questions or personal advice?**

Do you have any questions or would you prefer personal advice?

Send an e-mail to **[info@eurofiber.be](mailto:info@eurofiber.be)**

This is a Eurofiber e-book. The Lifeline platform informs and inspires in the area of digital connectivity: **[eurofiber.be/lifeline](http://eurofiber.be/lifeline)**