INsights

Fit for the future

What impact does COVID-19 have on the digital society?

What developments are taking place in the field of digitization?

How do our thought leaders view developments and trends within the ICT sector?

eurofiber

FOREWORD

Alex Goldblum
CEO Eurofiber Group

"Our role as a manager of vital infrastructure"

Twenty years ago, two ambitious entrepreneurs founded a company that they called Eurofiber. Their first project was the 'Randstad Ring', a 500 km connection linking the four largest cities in the Netherlands. Eurofiber now has thousands of customers, including companies, public authorities and non-profit organisations, which rely on its infrastructure with more than 38,000 kilometres of fiber-optic cable and nine datacenters. Alex Goldblum on 20 years of growth and the ever increasing relevance of the services that Eurofiber provides.

What was the idea behind setting up Eurofiber in 2000?
'Back then, copper wiring formed the digital connection for companies, and optical fiber was still primarily used as the backbone and for connections to big corporations. Even then, it was evident that optical fiber would be the future of digital connectivity, simply because it delivered superior performance compared to other technologies. Eurofiber had a distinctive profile from the outset due to its open network. Dark fiber was where it started, but the concept soon developed into a business model based on open access networks and datacenters. Where other providers viewed the connection as merely a vehicle for conveying paid services, we believed that digital connectivity should be open and available to all parties, not linked to other services. Customers should have complete freedom to choose the services, applications and providers they need. That vision is still alive and well at Eurofiber: we ensure that customers are free and can tap into the full potential of digital innovation. That's what brought us to where we are now: our role as a manager of vital infrastructure. Our networks and datacenters are the lifeline of the digital society.'

You joined the company in 2006. What was the appeal for you?
'When I joined Eurofiber, the fiber-optic market was already starting to grow, but it was really still in its infancy – and the same applied to the company. Effectively, we were still a start-up that employed about 30 people. It was extremely dynamic and exciting, and I saw huge potential in the company and in the market we were operating in. But what appealed to me most were the deep sense of entrepreneurship and the strong customer focus embedded in every fiber of the company. Everyone who works here realizes every day how crucial our services are to our customers, and acts accordingly. It's in our DNA.'

And now it's corona time ...
'The current health crisis is having a huge impact on society. We have been impressed in recent months by how well our employees are coping with this new dynamic. For instance, we were very quick to respond when customers asked us to ramp up capacity, as working from home became the norm. We aim to provide our employees with a healthy and motivating work environment which is needed to prosper. I am proud that this is now delivering results in the present difficult circumstances.'

How do you view 2021, could you predict a trend?
We will see further development of the connected society in 2021. IoT will take off seriously, including in the public space, where traffic control installations and information systems, for instance, are becoming increasingly advanced and more widely applied. I expect 2021 to bring us a host of new applications again and a further acceleration thanks to the first 5G networks that are now being rolled out.

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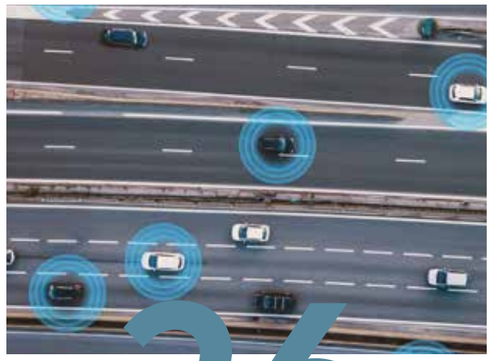

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OUR **HIGHLIGHTS** IN **2020:**

MAY

- Eurofiber exists 20 years
- Dataplace opens hypermodern datacenter in Hoofddorp

JUNE

- DCspine available on 70th DC location: QTS Eemshaven

AUGUST

- Eurofiber acquires Brightfiber
- DCspine moves to HQ Maarssen

SEPTEMBER

- Dataplace and Eurofiber organize Connect Run
- Vattenfall and Eurofiber form a joint venture and connect more than 500,000 households and businesses in Berlin
- Dataplace expands product portfolio with IaaS based on VMware Cloud Director
- DCspine network extension with 400Gbps

NOVEMBER

- Acquisition of Lumos in France
- Eurofiber acquires majority stake in cloud platform provider MatrixMind
- Eurofiber takes over the fiber optic activities Levelfour
- Dataplace passed all re-certifications for all locations and services
- Dataplace is one of the fastest growing companies in the Netherlands for the sixth year in a row

Dataplace Amsterdam

DCspine QTS Eemshaven

Connect Run

Digital infrastructure is the cornerstone for today's society

The magical year 2000 marked the entrance of a new millennium, with an ever-increasing impact of information technology on everyday life. On the internet with its countless application options, new business and revenue models have mushroomed, for example, along with an accompanying increasing demand for bandwidth. It was also the year two leading players in the Dutch bandwidth market were founded: Speer IT and Eurofiber. In an interview, Kees Jonker, CEO Speer IT, and Eric Kuisch, COO Eurofiber, look back to the past and ahead to the future.

Speer IT: a flying start with Cocon
In 2000, Speer IT started its work, Kees Jonker tells us: "The founders of Speer IT, Mark van der Heijden and Peterpaul Brundel, decided to start an IT company together at that time. A few months after the start, operator Telfort dropped in. He asked if Speer IT could help with a migration, because Mark and Peterpaul had worked with telecommunications before. The task was transferring the information through a fiber optics network of the Dutch Railways. Telfort had purchased a concession on that at that time. The data in question had to be migrated to the fiber optics information system that Telfort was using. Marc and Peterpaul then wrote special migration software for this.

Telfort liked that application better than the American fiber optics information system that had been purchased at a high price. Telfort therefore asked if they could continue to use Marc and Peterpaul's software. That was the flying start of Speer IT and Cocon, our software for the registration of landline and mobile network infrastructure. At one point, operator BT took over that part of Telfort. The funny thing is that BT is still one of our clients. We also have a long-term relationship with Eurofiber; we've been working together for about seventeen years now."

Eric Kuisch (l) and Kees Jonker

Eurofiber starting in 2000 with Randstadring

Eurofiber: starting with Randstadring

"Eurofiber started in 2000 with the construction of the Randstad Ring, a fiber optics network that ran between Amsterdam, Utrecht, Rotterdam and The Hague," Eric Kuisch reminisces in turn. The first part of what would later become a nationwide digital infrastructure. At that time, he was not working at Eurofiber yet, but was active at another big telecom company, KPN. "That was during the time that IT and telecom were booming, just before the internet bubble burst in 2001. A lot of telecom parties were constructing network infrastructure with high bandwidth then. It was a wild time, when big investments were made, and the Dutch market was seen as a springboard to the international market by various telecom companies."

His employer at the time was one of those companies that was looking to expand from the Dutch domestic market to other countries in Europe. "At that time, we were busy becoming a Pan-European telecom player and were not fully focused on the Netherlands. That was our domestic market in which we already had a dominant position. In that lee, various players, such as Eurofiber, were able to continue rolling out digital infrastructure in the Netherlands, with relatively little disturbance." In the years after that, Eurofiber took its first steps into the international markets with a series of acquisitions. At the same time, there was a lot of investment going on in the Netherlands, Kuisch says: "Around 2006, mobile telephony started to accelerate rapidly. This led to a greater need for fiber optics for mobile phone masts, something Eurofiber knew how to deal with. That demand caused a boost in the company's growth. Because the great thing was that Eurofiber was able to use the expansion of its fiber optics requested by mobile operators as a steppingstone to supplying bandwidth to other companies."

Growth acceleration and international expansions

Fast forward to 2020: both Eurofiber and Speer IT have grown enormously, in terms of the scope of the portfolio, the number of clients and employees and they are focusing on the international market. Both companies are now active in a number of countries. Speer IT serves various clients, including in Belgium, Germany, Great Britain, Ireland, the Middle East, Spain and Turkey, with the multinational version of its flagship Cocon, via the cloud. Growth that was purely organic, Kees Jonker explains. "I joined Speer IT as a partner about five years ago.

The company was at a crucial point: something had to be done to make additional, stable growth possible. I came from the KLM, where I had led big domestic and international operations. The contrast with Speer IT, which at that time was a company with just seventeen employees, could not have been greater." Jonker could see that the next step must be taken to ensure that the potential of Speer IT and its products would be used optimally. "One of the main changes that sped up our growth, paradoxically, was that we opted to restrict the speed of the software development, without sacrificing our versatility and flexibility. Because to roll out a new version quickly is inevitably coupled with technical errors. And as a reliable supplier, that is something we don't want. We also put more focus on business operations. Those steps gave our growth additional impetus. By now, just in the Netherlands, we have 99 percent of all the Fiber to the Home connections in our database."

Eurofiber in turn operates both fiber optics networks and regional datacenters abroad – through acquisitions and organic growth. What has not changed over the years is the close collaboration between the two companies. Kees Jonker: "We see our clients more like partners in 'small marriages'. You know that in relationships there are times when things are more challenging, and you need to pick up things for the other partner. And that you need to talk about it. And that the cause is often on both sides of the table. Then you have to get together and solve the problem. This builds mutual trust and you strengthen each other. Just like in a marriage. That is no different in the relationship between Speer IT and Eurofiber." Eurofiber's international expansion also creates opportunities for Speer IT, Eric Kuisch tells us: "We recently did an acquisition in France. We plan to use Cocon there to map out our assets."

Digitization during corona times

The corona pandemic has disrupted everyone's social life considerably all over the world. Citizens, companies and governments have had to deal with the effects of the various restrictive measures that are supposed to stop the rise of the COVID-19 virus. At the same time, it also brought another challenge for many IT and network companies with it. The demand for bandwidth exploded, because working from home became the new norm in a very short time. Both Eurofiber and Speer IT have had to deal with that. Companies were dependent on the digital infrastructure to enable employees to continue their work. Video conferencing replaced physical meetings and traditional education. The upscaling of band width went really well, both Eric Kuisch and Kees Jonker ascertain. A successful operation with a harsh cause. Eric: "The digitization of companies and governments has been sped up due to the corona pandemic. If there is anything in this crisis that can be called positive, this is it."

> "We see our clients more like partners in small marriages"

Bandwidth hunger keeps growing

What will the future bring for both companies? Eurofiber does not expect this growth to slow down any time soon. We are swimming with the tide: the need for reliable, safe digital infrastructure and high bandwidth is only increasing, both in the Netherlands and in the rest of Europe. The same applies to Speer IT. Because the growing hunger for bandwidth is coupled with the expansion of a fixed and mobile network infrastructure. And all those network components – both existing and new – literally need to be mapped out properly.

Datacenters are the foundation of a sustainable home working economy

The first and second wave of the COVID-19 pandemic disrupted travel and global trade. We were forced into a lockdown situation during which we all had to work from home.

It's quite an accomplishment that a large percentage of our working population (55%) easily adapted and started working from home. Within a week, everyone started working from home and business continued "as usual". Perhaps I'm phrasing things a bit too positively, because everyone knows that the economy took a heavy beating, but this impact would have been much greater if the Dutch digital sector hadn't made sure that we've built a very good and stable infrastructure together in the past years. A strong foundation in which a small country has a very large presence and which our neighbouring countries are very envious of. We shop online, we game online, we meet online, we stay in touch with friends and family online, we watch films via the home cinema and we even practice sports via a Zoom meeting.

Very simply put, we can do what we do because it works, our internet can handle larger bandwidths, we generally have our office automation set up perfectly, and because it works it doesn't bother us and we can continue to work from home. The necessity of an office environment for working in no longer exists; and let's be honest, the coffee always tastes better at home.

"Our digital infrastructure must become a basis for a sustainable home working economy which we will continue to develop in the coming years"

Our digital infrastructure must become a basis for a sustainable home working economy which we will continue to develop in the coming years. Because working from home will increasingly become the norm. There are already companies who are adjusting their buildings for this. Companies are increasingly becoming a meeting place for colleagues where we can meet, follow scrum meetings and training sessions and invite suppliers and customers to. The real work that requires focus is done from home. A positive development, because working from home causes much less traffic congestion, we require fewer cars and as such use much fewer environmentally-burdensome energy sources. This hybrid way of working is only possible if we keep investing in good digital and sustainable infrastructure.

And this is what we're doing, because everything that happens online starts in a datacenter. In the Netherlands, the majority of datacenters use green energy. During the first wave in the Netherlands, we saw that overall energy use decreased by 10% and CO2 emissions decreased by 5M tons (source: DDA) while energy usage in datacenters increased slightly (1%-4%).

According to recent studies in Science magazine (February 2020) and by the International Energy Agency (IEA, June 2020), the electricity use of datacenters worldwide increased by only 5% between 2010 and 2018, while our data traffic increased 14-fold and data storage increased 25-fold during that period.

The IEA indicates that if current trends in the efficiency of hardware and datacenter infrastructure can be maintained, the worldwide energy demand for datacenters will remain almost the same in coming years, despite an increase of 60% in service demand. The fact is that datacenters are the industry that made the biggest and fastest strides in terms of sustainability in recent years. Smart solutions from datacenters in particular are crucial in further energy savings. Now that everyone is working from home thanks to datacenters, our energy usage has decreased and our CO2 emissions were reduced due to less home-work commuting, according to a report by IEA and CE Delft. This shows that our digital basis of networks, internet connections, datacenters and cloud solutions are a crucial part of our sustainable home-working economy. Because everyone agrees that working from home, preferably in a hybrid form, will increasingly become the norm.

Paul Faas
Manager Marketing & Business Development
Dataplace

DCspine tackles cloud knowledge gap

Almost 80 per cent of decision-makers in large companies and SMEs believe that a lack of knowledge is hindering the use of the cloud. DCspine has the solution. "Our technology makes it simple to set up multi-cloud platforms and we support our partners with our knowledge", says Jan Michiel Berkel, managing director of DCspine.

While dividing workloads among dedicated servers and public clouds and spreading applications across multiple cloud providers is increasingly common, it is by no means simple. As a result, many companies take unnecessary risks by transferring highly sensitive data to the cloud over the (open) internet. Furthermore, the limited quality of internet connections means that companies are at risk of their applications being temporarily unavailable or not functioning properly.

Jeroen Verheijen, who describes himself on LinkedIn as a 'Cloud Connectivity Enthusiast' (aka: DCspine's Product Developer) explains some of the reasons behind these difficulties. "It starts with each cloud provider having its own rules for establishing a direct connection. This applies not just to the major providers Google, Azure and Amazon, but also to the more specific players such as Oracle or SAP. That poses problems for anyone wanting to use multiple cloud providers, as service providers do. In addition, each of the service provider's customers has its own wishes and requirements in terms of bandwidth usage, redundancy and latency. This makes it a complex undertaking for IT service providers, system integrators and managed service providers to build good, scalable solutions. While custom solutions may be tempting, service providers know they are not sustainable in the long term, since servicing them is extremely costly."

Under control

The strong growth of the cloud and demand for flexible and scalable solutions led to the creation three years ago of a platform that makes it very easy to set up the various connections. "We took the step of standardising the different connections to cloud providers and service providers and terminating them at more than 70 datacenters in the Netherlands and Belgium. "The great thing is that we fully manage our network, which incidentally we configure and manage according to a software-defined concept, and therefore have everything under our own control. As a result we can always guarantee a connection and, above all, we are scalable. Flexibility, ease of use, scalability, guaranteed connection and knowledge support - these are the key advantages we offer our partners", says Berkel.

Internet not secure

Verheijen understands the choice for connecting to a cloud provider over the internet, but explains why this is not always a good idea: "the more workloads and applications are placed in the cloud, the more dependent you become on reliable connectivity for connecting to the cloud. Demands are made, such as zero service interruption (e.g. minimum packet loss and latency) which the internet cannot meet. The internet is a great medium, but a lot of traffic over the public internet is vulnerable to security incidents. It is a shared medium, and that poses a risk."

Managed service providers and system integrators traditionally have experience in purchasing fiber-optic connections for their customers. Direct connections to the public cloud are comparable, but require additional expertise. Companies and organisations contact their managed service provider or system integrator first if they experience performance loss or have questions about the security of their data. "Our offering enables the MSP's and SI's to provide guaranteed and secure connections as a service in a simple and affordable way, allowing their customers to benefit from the maximum advantages of the cloud. Furthermore, it makes service providers' lives easier in easier managing a large number of connections to the public cloud. That is what it is all about for us," explains Verheijen.

Help needed

Companies want to keep their data out of the wrong hands. This is especially important for public authorities and in the healthcare sector in particular. Retail is another sector that is vulnerable to a faltering connection. This can cause an immediate loss of revenue, not to mention reputational damage, if data are leaked and become public. "You shouldn't be reliant on the internet. The only solution is a secure connection, such as we have configured."

But IT service providers need help in accommodating their customers in this respect. Not in the least because they often lack the knowledge and insight needed to meet their customers' demands. "Customers understand the importance of the public cloud for their operations, but they still need a good connection." Most connections to cloud providers are currently configured with a capacity of several hundred megabits, and to a limited number of providers. "That is not adequate for the future," says Berkel. "Particularly if organisations move larger amounts of data to the cloud in the coming years."

Portal

These connections can be set up via DCspine's portal in a few simple steps. "We offer a variety of options. Our partners decide with their customers which options are best suited to their needs. This way we jointly ensure the best solutions. We also have a simple business model for our partners: no large investments or rigid volume contracts upfront, but a scalable approach based on the customer's needs," says Berkel.

New partners are shown how everything works and they will know who to contact if they have any questions. "They use a self service portal, but if they run into difficulties then they know there is always a team on hand to help them out. Of course, they are expected to familiarise themselves with the details of secure and guaranteed cloud connectivity and the full range of services we provide. But we take responsibility for providing the right connections and the necessary expertise." Verheijen adds: "People often focus first and foremost purely on how much a connection costs, but it is important to remember that it also costs a lot to maintain the connection, and also to maintain the requisite knowledge and expertise. They should consider the total cost of ownership: then we stand out favourably in terms of our price/service combination."

This interview with Jan Michiel Berkel and Jeroen Verheijen appeared in Dutch IT Channel.

The trends for 2021

according to the thought leaders of Eurofiber, DCspine and Dataplace

Alex Goldblum
CEO Eurofiber Group

We will see further development of the connected society in 2021.
We will see further development of the connected society in 2021. IoT will take off seriously, including in the public space, where traffic control installations and information systems, for instance, are becoming increasingly advanced and more widely applied. I expect 2021 to bring us a host of new applications again and a further acceleration as the first 5G networks continue to be rolled out.

"IoT will take off seriously, including in the public space"

Jeanine van der Vlist
CCO Eurofiber Group

Trend 2021: Increased customer involvement in the production process
Customers are no longer content merely to be passive recipients of information and products. They want to be involved and become part of the business process. Customers are increasingly contributors who are keen to influence the shaping, servicing and design of products and services. This highlights the importance of creating a data platform where customers can share their views, to the benefit of customers and company alike.

Edze Tollenaar
CFO Eurofiber Group

IT to progress beyond working from home
Since the onset of the COVID-19 crisis, working from home has become the norm for many of us. Our focus will shift in 2021 to reshaping our organisational culture and further growth. We aim to reaffirm the core importance of our employees and provide a healthy and motivating work environment which is needed to prosper. This is prompted in part by the results of a survey conducted by AG Connect amongst more than 700 IT professionals which showed that 15% did not think their company was ready to facilitate working from home for most, if not all, employees. I expect IT to progress beyond working from home in the coming year and become location-independent.

Eric Kuisch
COO Eurofiber Group

Hybrid Cloud acceleration
Many companies are considering whether to move their IT systems to the cloud. Cost savings and flexibility are key factors in their decision-making. Importantly, they seek to benefit from the expertise of the major public providers Google Cloud Platform, Amazon Web Services and Microsoft Azure. However, the stricter requirements placed on privacy and security mean that this migration to the cloud will not extend to all systems and data, with companies preferring to manage part of their IT assets in their own, private cloud environments: Hybrid Cloud. The COVID-19 crisis will prompt companies to quicken the pace of digitisation and accelerate the implementation of these hybrid cloud environments in 2021.

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Paul Naastepad
Managing Director
Eurofiber Nederland

I would like to make 2021 the year of our heightened focus on the sustainability of our industry.
Fiberoptic networks use much less energy than copper networks; an active switch-over from copper to fiber is beneficial to our environment in this respect. Datacenters have made big steps in reducing their energy consumption, yet the growth in global data usage unfortunately competes with this progress. Sustainability is about much more than energy consumption and CO2 reduction though. Networks can be built much more sustainably by accommodating from the outset easy upgrades and extensions rather than just fitting one purpose, one technology, one operator or one customer. We should embrace "CSR by Design": include our Corporate Social Responsibility -thinking in building networks from day one. If all kind of network infrastructure companies and cities would be able to align design- and installation planning, huge efficiencies can be achieved in material usage (less waste), handling- and transport movements for instance. Also the public at large would be less frustrated with yet another street being opened up. Just as difficult as it is to make this chain-cooperation work, making a big step forward in material usage is equally challenging. For example, telecom cables and ducts are made of polyethelene, an oil / gas derivative. Recycling old ducts and cables as a base material for new products can be done, even if it requires a big effort and it will drive up costs. The fiberoptic industry is improving the world with all the benefits of digitization. I would like our industry to take a step beyond a carbon neutral goal towards a cradle-to-cradle future. The EU "Green Deal" outlines much of the vision I share. I want Eurofiber, the whole fiberoptic industry even, to take as much responsibility as we can bear in in the area of making our planet more sustainability.

Gerben van der Veen
Managing Director
Dataplace

Digitisation in general keeps growing and is stimulated by COVID-19.
I expect that the retrieval of "company data" from the cloud will further accelerate. This trend is supported by various market analyses and for 2021 I expect that this development will further alter the needs of the market and customers. With the new IaaS product and the Matrixmind services, I expect that we will in 2021 increasingly serve our customers in the cloud infrastructure and I look forward to another ambitious and challenging year.

Ivo Veerman
Innovation Officer
Eurofiber Group

The advent of Private 5G networks, a shift from one-size-fits-all to mobile customised solutions.
As a result of further Digitisation (e.g. Industry 4.0 or the further rollout of IoT), Cloud services will see increasing adoption and the need for Total Connectivity (always available high-quality connectivity) will increase. In addition to the stringent requirements already in place for wired connections (WAN), the customer's mobile connectivity on site will become increasingly "business critical" and this will become subject to increasingly stringent requirements.

In addition to the use of public 5G networks (provided by traditional mobile operators) or a WiFi solution, it is now also possible to set up a private 5G network with superior coverage which is completely tailored to the customer's specific requirements. Configurations can (depending on the function or type of use) differ per location, which allows customers to define specific requirements in terms of coverage, availability, latency, on-site support, security etc. The demand for mobile connectivity will as a result shift from one-size-fits-all to customised mobile solutions.

Eva van der Haar
Sales Development Manager
Eurofiber International

Customer service will become more important in 2021
Customers more than ever value a stable network, high SLAs on bandwidth and premium service. Despite the fact that switching providers is rare, sub-par (customer) service can lead to the termination of an ongoing contract.

"Customer service will become more important in 2021"

Herbert Grevengoed
Director Customer Process & Quality
Eurofiber Group

Digital is the new normal.
Only people can make the difference!
Many organisations who want to improve their customer experience focus on digitisation and automation. In recent years, a number of organisations have achieved enormous growth by excelling in digital ease of use. Organisations in both the B2C and B2B market have made tremendous strides by making things simple, personal and proactive. And due to the coronavirus crisis, the entire process of digitisation has been accelerated, where the experiences we have as B2C customers are also expected from B2B organisations. Digital has become the new normal. At a certain point, we will achieve a level of maturity of digital ease of use and it will become a commodity. If you have it, the customer thinks it's very normal. If you don't have it, you're in big trouble and it will be difficult to distinguish yourself with this. Ultimately, there is only one way to distinguish yourself, and that is through the people who work for you and us! Not only the people who are in touch with the customer, but everyone who works at your organisation. However, different things will be expected from our organisations and our people. Customers expect a partner who helps them fulfil their expectations, needs and ambitions. But also a partner who wants to contribute to the development of society.

Rhoderick van der Wyck
International Sales Director Eurofiber

Digitisation is accelerating and Eurofiber is playing a crucial role in the ICT ecosystem of the global players.
Eurofiber supports international customers and carriers by connecting them with our dense footprint of corporate buildings and DCs in the Netherlands and Belgium. Now that we are expanding our geographical presence into Belgium, Germany and France, our international customers are showing great interest in keeping Eurofiber as a partner for their own expansion plans. Our connectivity proposition, including DCspine, is now increasingly cross-border. More and more customers are putting their trust in us for their connectivity needs in the greater Benelux and will follow us when we have expanded our footprint and have more possibilities to serve them at a European scale - we already received the first request for fibers in Berlin.

Chris Bakx
Managing Director
Group Marketing

Visibility as a beacon in the post-COVID-19 mist
Visibility will become increasingly important as part of accelerating digitisation (digital first). The (partial) disappearance of analogue customer contact and the transition towards a hybrid model in which contact is increasingly digital means that you must be able to be found more easily/quickly by your prospects and customers and serve your customers even better with a digital first strategy. This requires clear choices in your media strategy, recognisability, proposition and communication. In addition, the situation is changing so quickly as a result of COVID-19 that organisations must employ or standardise a data-driven, agile work method in order to adapt quickly enough to changes and the reduced predictability of marketing and sales activities.

Jan-Michiel Berkel
Director DCspine

Cloud adoption is a strategic choice, not a cost assessment
The cloud was called a hype for years. The transition to the (public) cloud turned out to be much more complex than initially thought and this is why people came up with better solutions for hybrid clouds, a combination of on-premise legacy infrastructure and private and public cloud. Since the first hype, organisations now increasingly view the cloud as a strategic choice that offers more resilience, agility and innovative capacity and allows them to respond to customer demand more quickly. This has made a 1 to 1 comparison of costs less relevant: the cloud offers something extra compared to the old situation. In addition, the availability and security of the (public) cloud are now at a high level. End users will increasingly want to combine various clouds. CSPs and other providers of cloud services must therefore prepare for busy times. The demand for multi-cloud architecture is set to increase. These are set up from multiple datacenters via different types of cloud connections. The advantages of the cloud, such as increased agility, scalability and flexible cost structure are the starting point here. These are also the requirements for the networks connecting these clouds.

Hessel Idzenga
Manager Design & Architecture
Eurofiber Group

Security will become increasingly important in the end-to-end process of telecom service provision
Customers will have increasing security requirements in 2021. And this on two levels: the security of his own service, and in addition I expect that customers will have more requirements for how we secure our own systems and networks. The first aspect is secured with measures such as anti-DDoS, guaranteeing continuity, and for instance the introduction of SD-WAN which protects customer connections against tapping using end-to-end encryption.

On our own networks and services, we implement "security by design", where servers and network equipment are inherently securely configured and which allows us to put multiple locks on the doors which would allow one to access to our network management. We stimulate awareness among our staff and encourage them to raise the alarm if they have any doubts. And occasionally we carry out a penetration test to keep our internal organisation sharp. This is how we secure both the Eurofiber environment and customer services!

Dave Dekkers
Commercial Director
Dataplace

Hybrid solutions are the future for datacenters
Hybrid solutions will become more common than just co-location solutions in datacenters. By this we mean that many customers who previously only purchased co-location will now combine this with cloud services. In some cases they will purchase this from us and in other cases from another IaaS provider or the public cloud of Azure, AWS or Google.

"Hybrid solutions will become more common"

Patrick van de Pol
CISO Eurofiber Group

There is no quality mark for 'secure home working'
Due to the coronavirus, working from home has become very common over the past year.
As a result, we have seen a huge increase in cybercriminal activity. Various types of ransomware and phishing, but also an exponential increase in DDoS attacks. The prediction is that cybercriminals will in 2021 continue focusing on people working from home with these kinds of activities, and they are sure to deploy new tricks as well. I sometimes dream of an authority to come up with a quality mark for 'Secure Home Working' so that we can test all colleagues working from home for compliance with this and can give them a sticker for their front door.

But unfortunately this won't work; there will be no such quality mark, we will have to continue to reconsider our security approach for the people working from home ourselves and together in order to respond to these threats. So take the initiative and engage in dialogue with the ICT and Security professionals in your organisation to discuss which measures can contribute to (more) secure home working in 2021 from the perspectives of People, Process and Technology. If I can make a few suggestions for topics for such meetings, these include: cyber secure behaviour, password-less authentication and "zero trust security" culture.

Elvira Kneefel
Business Development Manager
DCspine

The As-A-Service Revolution
"As-a-service" - the provision of services that we need to live and work via cloud-based, on-demand platforms - plays a central role these days, and not just because of the pandemic. Thanks to cloud services from providers such as Google, Microsoft, Amazon and a growing horde of start-ups and spin-offs, innovators can implement advanced technology on all fronts with little upfront investment in hardware or people.

While the COVID-pandemic rages on, we've clearly seen that companies offering scalable solutions as-a-service are thriving. An example of this is Zoom. They were able to quickly increase their capacity and meet demand. They were able to achieve this through the speed with which they were able to add servers and increase the coverage and quality of their services. In 2021 and beyond, this scalability will becoming increasingly important.

Frenk Storm
Sales Director
Eurofiber Nederland

Office will become clubhouse
Due to the Covid-19 pandemic, we've had to work from home much more. A bit awkward at first, but the use of communication apps such as Zoom and Teams has by now become a kind of second nature. In terms of productivity as well, we see that working from home has advantages, such as the elimination of travel time and the discipline of employee to deliver output. On the other hand, there is a lack of actual interaction and contact.
I expect that the new normal in terms of office and home working will be a hybrid form. Several days working from home and then going into the office occasionally to meet each other, have a creative session, forge teams or just because it's fun. That's why offices will look different; not so static with mainly workplaces and a few meeting rooms, but a stimulating and inspiring environment that facilitates interaction.
This means that we'll be working in the cloud even more, security will become more important, HR programmes for team building and learning will be upgraded and we may need less office space. I'd almost like to say that your visit to the office will become an outing that you really look forward to once or twice a week

Steven Klockaerts
CIO Eurofiber Group

We can make the jump
Board members in European companies reported in a 2020 survey that 'Digitalization, disruptive technology and other innovation' is a top five risk to their organization. Either from a perspective not being able to keep up the pace or from being disrupted by the competition. This is clearly driven by the evolution that digital technology has become an integral part of products and services. Almost every business activity is designed using technology and more and more business activities are fully digitized. This technology has become of paramount importance for enterprises because it enables creation of business value through data and fundamental redesign of business models and processes. A simplified roadmap may look like: explore digital, do digital, become digital, being digital. However many organizations get stuck in the middle implementing technologies rather than making fundamental changes beyond silos, changes to business operating and customer models and reimagine new ways of engaging the customer and develop new platforms in an ecosystem. If there is one inspiring takeaway from 2020 is that we as a collective can drive digital adoption much faster than we could imagine. So let's make that jump!

Armijn Spreitzer
Teamleader Products & Solutions
Eurofiber Group

The crucial importance of secure, good and flexible connectivity is increasing
In these unpredictable (COVID-19) times especially, we see that the crucial importance of secure, good and flexible connectivity is increasing. We expect that we can communicate anywhere and anytime, that it always works and that we can use any application, whether for work or private use. And that's exactly what we're always working on at Eurofiber; advising our customers and providing them with connectivity with which they optimally respond to a rapidly changing society.

Jan Bonke
Manager Operations
Dataplace

The goal of ultimately working towards a fully circular sustainable economy
Sustainability has always been an important pillar within the datacenter industry, but this will become the number one trend in multiple industries next year. As such, Dataplace is continuously working on the optimisation of its energy-efficiency and closely following the newest technologies and innovations to improve and make its services more sustainable. Our datacenters run on 100% green energy and use energy-efficient installations for both cooling and electricity. Considering that sustainability is becoming an increasingly important focus for most companies, we will always enter into dialogue with these organisations with the goal of ultimately working towards a fully circular sustainable economy.

Paul Faas
Manager Marketing & Segment Sales
Dataplace

Our digital infrastructure will be a basis for a sustainable home working economy which we will continue developing in the coming years.
Working from home will increasingly become the norm. Companies will become more of a meeting place for colleagues where we can meet, follow scrum meetings and training sessions and receive suppliers and customers. The real work that requires focus is done from home. A positive development, because working from home leads to less traffic congestion. We need fewer cars and therefore use much fewer environmentally-burdensome energy sources. This hybrid way of working is only possible if we keep investing in good digital and sustainable infrastructure. And this is what we're doing, because everything that happens online starts in a datacenter.

Janita Sluurman
Business Process Consultant
Eurofiber Group

Decline of the dashboard, increase of dynamic intelligence
Dynamic and more automated data solutions with customer centric experiences will replace visual, point-and-click dashboards. As a result, the amount of time users spend composing and using dashboards will decline. The shift to in-context data solutions means that the most relevant insights will stream to each user based on their context, role or use. These dynamic insights require technologies such as augmented analytics, NLP, streaming anomaly detection and collaboration. This is why Eurofiber evaluated our analytics and business intelligence tools and is introducing Einstein Analytics within FiberForce. With Einstein Analytics you automatically find simple answers to complex business questions in your data. With transparent, easy-to-understand AI models, you will discover what happened, why it happened, what will happen in the future and how to anticipate on that. With this you identify opportunities, you predict results, you get recommendations. Einstein Analytics is part of Eurofiber's strategy to become a more data driven organization.

Nick Vaes
Group Director Network Operator
Eurofiber Group

Increasing number of DDoS attacks in 2021
DDoS (Distributed Denial of Service) are attempts to block or impede access to a computer, computer network or service. We're seeing that these kinds of attacks are becoming increasingly common and last longer or are on a greater scale than used to be the case. Due to the increasing number of services migrating to the Cloud, the use of anti-DDoS or a private connection with the cloud through Secure Cloud Connect is becoming increasingly important in order to secure the continuity of services.

Jacqueline Bij de Vaate
Marketing Manager
Eurofiber Nederland

Co-creation and partnerships will become more important in 2021
Within marketing, we have seen that digital collaborations and partnerships are becoming increasingly important. At Eurofiber we frequently work with local governments and build Smart Cities together. Within the Amsterdam Smart City initiative, we meet likeminded people who are all striving towards progress and are open to innovation and collaboration. It's very valuable for us to make new contacts and inspire the partners of the ecosystem with presentations, (online) events and demos. I expect that in the coming year, there will be a greater focus on these ecosystems in order to make the difference in the market.

Joost van der Sluis
Manager Finance & Business Control
Dataplace

Modern IT developments will simplify auditing both the quality systems and annual figures of our organisations and our operating locations.
Because audits (partially) take place remotely, this is in addition to its increased efficiency and effectiveness also a more sustainable way to work.

"Modern IT developments will simplify auditing both the quality systems and annual figures."

Jesse Gerritsma
Business Development Manager
DCspine

Hybrid Cloud is fastest growing business architecture
It's known that companies are increasing moving towards a hybrid cloud infrastructure. From SaaS-applications and on-prem solutions to a mix of public and private clouds. Hybrid cloud strategies help organisations find the right balance for their unique needs for cloud infrastructure. Increasingly, challenges in the areas of privacy, security and compliance are improved for customers, removing the barriers for migration to the cloud. We've seen in the past year that companies over the whole world are accelerating investments in the cloud in order to allow for quicker responses during times of uncertainty and disruption. This indicates the value and necessity of having a nimble and adjustable cloud infrastructure.

Jeroen Verheijen
Commercial Product Manager Cloud
Eurofiber Group

2021 will be the year of True Cloudification
We connect everything, including total cloud solutions for customers with which complex data streams to and from the cloud can be facilitated in the safest, most efficient way.

Marc van der Heijden
Digital Marketing Manager
Eurofiber Group

Use data to help your customer in their purchase process
Documentaries such as The Social Dilemma and The Great Hack have further underscored the societal impact of the use of data. In addition to the increasing needs of customers for more privacy and control over their own data, this means that organisations must in 2021 critically assess the way in which they use data. So ask yourself as an organisation: do we use data to achieve as many leads/sales as possible? Or do we really use data to help the customer in his purchase process? Answering this question will lead you as an organisation to think about the entire marketing strategy and the quality of the resources you're deploying. In addition, following Safari and Firefox, Google Chrome has this year announced it will block third-party cookies by 2022 at the latest. Take some time next year to determine how you will collect your own prospect/customer data via first-party cookies. Of course, always make sure you have the right permissions. And communicate transparently with your website visitors about which data you collect, why you do this and how.

Digitisation opens up new opportunities for construction sector

A survey of the dykes, bridges, roads and bold architecture in the Netherlands should be enough to convince anyone that the Dutch construction sector is capable of creating true works of art. According to experts, however, there is significant ground to be made up in digital innovation in the sector. 'Digitisation in construction should be embraced more widely,' says Martijn Woltinge, account manager at Eurofiber Nederland. 'It offers enormous potential.'

Traditional
'The Dutch construction sector is traditional and likes to work according to a set of standard processes,' says Woltinge 'There is a reluctance to embrace digital innovations, and where they do find traction, they are generally consigned to a separate unit so as not to interfere with existing processes. I believe this will have to change quite soon. The introduction of new ways of working and modern processes will facilitate cooperation between different suppliers, which will hopefully help to speed up completion and delivery times and drive down failure costs. The construction sector currently spends a lot of time on meetings and consultation. Further development of Building Information Modelling (BIM) software, for instance, with scope for including multiple processes, will have a positive effect for all stakeholders in the construction sector.'

New revenue streams and increased sustainability
Aside from the use of BIM software, Woltinge argues that the construction sector has much to gain from applying digital technologies across the various projects. 'Take 'smart sensoring' for example. This allows construction partners to collect data about road and building usage and its impact on safety and energy management, for instance. A construction company can then supply these data, whether or not presented ready-for-use in a digital dashboard format, to the client. The potential is there to generate a new revenue stream for building firms as an extension of their core activities. Alternatively, they can be an ideal means for enhancing customer satisfaction. The same also applies to the use of other innovations, such as Virtual Reality, Augmented Reality, Digital Twins, Artificial Intelligence algorithms and 3D printing. A few examples: Virtual Reality or Augmented Reality allows clients to 'sneak a peak' in the buildings planned for construction. This provides an extra service dimension and contributes to increased customer satisfaction. And no less important: innovations such as 3D printing enable the construction sector to make significant advances in improving sustainability. On-site 3D printing alone can cut carbon emissions by reducing the number of journeys to deliver construction materials.'

Digital infrastructure
All digitisation initiatives in the construction sector give rise to the fundamental question: how do you ensure applications and data are transferred from A to B? 'Certain conditions are key,' says Woltinge. Firstly, the digital infrastructure needs to be secure. The last thing you want is for the data to fall into the wrong hands. Or that an incident occurring during excavation work causes a network connection to be severed, halting the flow of data. In addition, the digital infrastructure needs to be as future-proof as possible, ensuring that current as well as expected bandwidth needs can be met. Finally, flexibility - of digital infrastructure as well as on the part of the infrastructure provider - is vital.'

Successful digitisation of the construction sector crucially depends on the basis of a solid, secure and future-proof digital infrastructure. 'It may seem obvious, but in practice it often gets overlooked in the initial phase of digitisation strategies, for instance,' says Woltinge. Take the security aspect: this goes beyond data encryption and may also extend to whether a truly redundant network connection exists, for example. In case of a lost connection, the data should be automatically rerouted. And by 'truly redundant' I mean, among other things, that the actual fibers are not housed in the same cable, since, if the cable is damaged by an excavator, bang goes your redundancy.'

Anticipating market demand
Future-proofness is a further crucial aspect of a good digital infrastructure,' says Woltinge. 'Foresight is the essence of good management. If you are building an office building, there is unlikely to be much demand for bandwidth initially on the construction site. At the same time, you know that organisations place increasingly higher demands on digital infrastructure. And that modern buildings should be fitted with advanced building management systems that depend on reliable connectivity. Builders can anticipate this at an early stage.
A flexible provider of digital infrastructure is willing to plan together with the builder in such a case. By connecting the site hut to the installed fiber-optic network, for instance. Once building work is complete and the property has been delivered, it is relatively easy to move the connection inside the office building. The construction firm and property operator are then adding a crucial factor to the attractiveness of the building.'

The National Benchmark: Digitisation in Construction 2019
If you ask the members of the Dutch Construction and Infrastructure Federation to define what 'digitisation' means to them, the vast majority point to Building Information Modelling software. Application of other technologies, such as the Internet of Things, Augmented Reality and Artificial Intelligence, lags far behind, however. These are some of the results of the National Benchmark: Digitisation in Construction, a survey carried out on behalf of Japanese electronics and printer manufacturer Canon.

To be precise, 71% of the companies surveyed said that using BIM software had most impact on their digital operations. Automatic document and file management in the cloud came a close second at 54%, followed by implementation of 3D modelling on 49%. Advanced technologies - the Internet of Things, Artificial Intelligence and Machine Learning – came off badly at 12% and 4%, respectively. Yet, there is a glimmer of hope: according to the survey, 48% of the surveyed construction firms are firmly convinced of the need to accelerate the pace of digitisation in their internal and external processes.

Any organisation wanting to develop and test an application roughly ten years ago needed to invest significantly in IT resources, from licences for programming tools to hardware, to have much chance of success. In 2020 this is no longer the case, thanks to the emergence of cloud platforms providing a range of cloud computing offerings, including Infrastructure as a Service (IaaS).

"IaaS promises to become just as commonplace as electricity from a wall socket in the coming years"

'IaaS is the electricity supply for the IT needs of organisations'

While IaaS is already quite widely accepted, it promises to become just as commonplace as electricity from a wall socket in the coming years, predicts Maurits van der Zouw, Commercial Product Manager at Eurofiber Nederland.

Increased flexibility

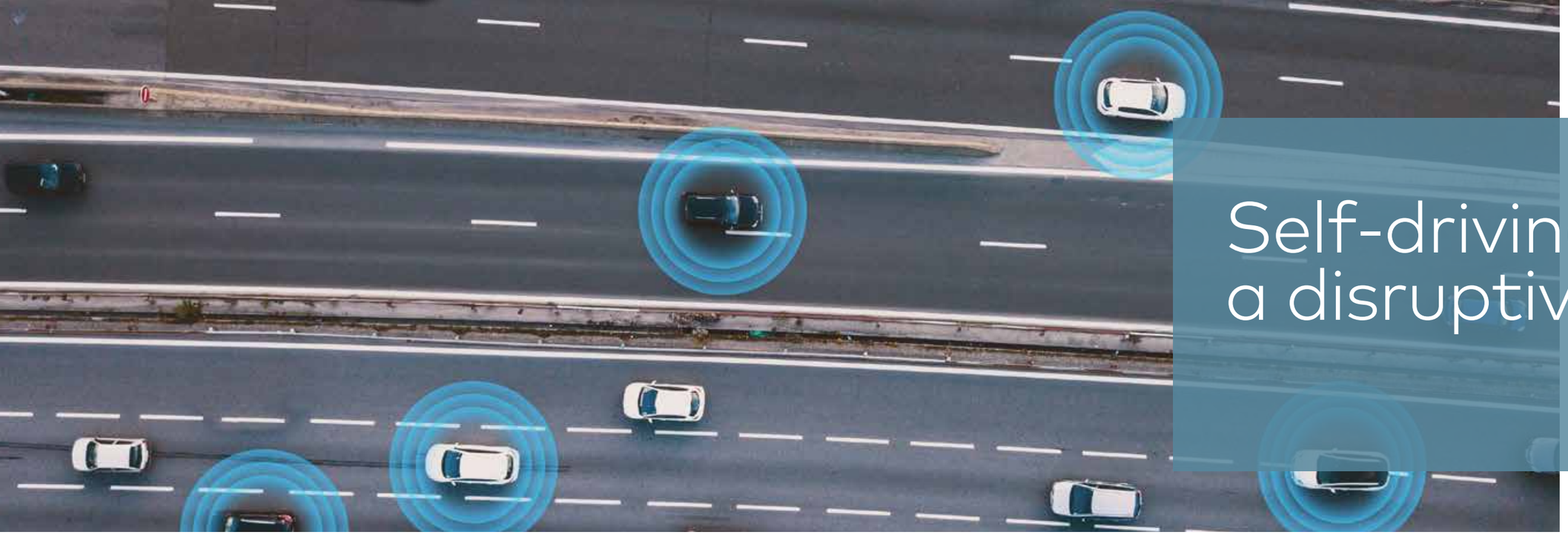
The popularity of IaaS is easy to explain, says Van der Zouw: 'It gives organisations greater flexibility, without entailing relatively costly investment. You pay for what you use, instead of having to purchase, implement and manage hardware and software yourself. This is all provided by the party offering the IaaS service. It also means you no longer have to worry about scalability and security, among other things. Anyone now developing an application can start with a limited range of IaaS resources and scale up seamlessly, as and when needed. It is ideal for software producers, for instance, who want to develop and offer an application as Software as a Service.

Regional IaaS players

Continuing developments in the field of IaaS are also forcing down the usage threshold, explains Van der Zouw. 'It was initially the exclusive domain of IT specialists who understood IaaS services and large corporations that could draw on a sizeable IT budget. However, IaaS services have become so user-friendly and financially accessible that they are now available to a larger group, without the need to spend vast amounts of money. An additional factor is that organisations are no longer restricted to the major foreign cloud providers, such as AWS and Microsoft, for purchasing IaaS services. They can now choose from a select group of IaaS providers with regional reach, such as Dataplace. They generally offer the full range of IaaS services, but with the personal attention and hassle-free approach you might expect from a supplier that is literally close to you. Regional IaaS providers do not treat you like a nameless number. They also allow organisations to weigh up which workloads and data to assign to international IaaS services and which to keep closer to home. In addition, your data are not stored 'somewhere in the cloud', but are guaranteed to remain on Dutch territory. This is essential for many organisations, as it may be a condition for compliance with Dutch supervisory and regulatory requirements.

Edge computing as a Service?

Van der Zouw expects to see deeper and broader development of IaaS in the coming years. 'IaaS services will inevitably play a role in technologies which are still emerging, such as distributed cloud environments in the form of edge computing.' He predicts that IaaS will become commonplace in the coming years thanks to its flexibility, accessibility and financial attractiveness. 'I think that in a few years time it will be just as common as the electricity supply in a building. We give little thought to what is involved whenever we switch on the light in a room. That somewhere there is a power plant that is fed by solar or wind energy, for instance. And that an entire electricity grid is needed to transmit the power to the building. We turn on the switch and get light when we need it. IaaS is the electricity supply for the IT needs of organisations.'



Self-driving cars: a disruptive force

In recent months, experts from Eurofiber have shared their views on trends which are set to influence our daily lives in the shorter as well as longer term. Today we hear from Frenk Storm, Sales Director Direct Sales at Eurofiber: 'The impact of autonomous vehicles goes far beyond what many people imagine.'

Five levels

While it may seem that self-driving cars, trucks, trains and ships will not reach mainstream for some time yet, incremental changes mean they will be reality sooner than we think each day. The consequences of autonomous transport are huge, predicts Frenk Storm. 'Of course, we are not at that point just yet. Five levels of autonomous driving capability in cars are identified. We are now roughly at level two, with cars that can park themselves and keep safely in lane on motorways, for instance. Level 5 is complete automation. At this level, fully autonomous vehicles are simply instructed where to go to, and they do the rest themselves, even in congested towns and city centres. It will be another fifteen years or so until we reach this level.'

Fewer road accidents

Storm is convinced that fully autonomous driving is just a matter of time. But not just because it is technically feasible. It also serves a higher social purpose: reducing the numbers of road fatalities and road injuries. 'Each year, roughly 1.2 million people are killed and 50 million are injured in road accidents around the world,' says Storm. 'And we shouldn't forget the associated financial loss and the negative impact on the economy caused by traffic issues, such as hold-ups. The majority of accidents are caused by drivers themselves, because they are distracted by incoming messages while driving, for instance. In this area alone, self-driving cars can have an enormous, positive impact.'

Impact on healthcare and insurance

The impact of autonomous vehicles also extends to other sectors than the automotive industry, says Storm. 'Take healthcare, for example. Self-driving cars should, in theory, also cause fewer accidents, resulting in substantially fewer deaths and injuries. This will lead to overcapacity at hospitals. It also gives rise to the need to develop new business models, such as capitalising on the data generated by the vehicles. This could be of particular interest to insurance companies, for example: they may find their premium income reduced as drivers weigh up the need to take out more than just basic insurance if their car is unlikely, if at all, to be damaged in a road accident.'

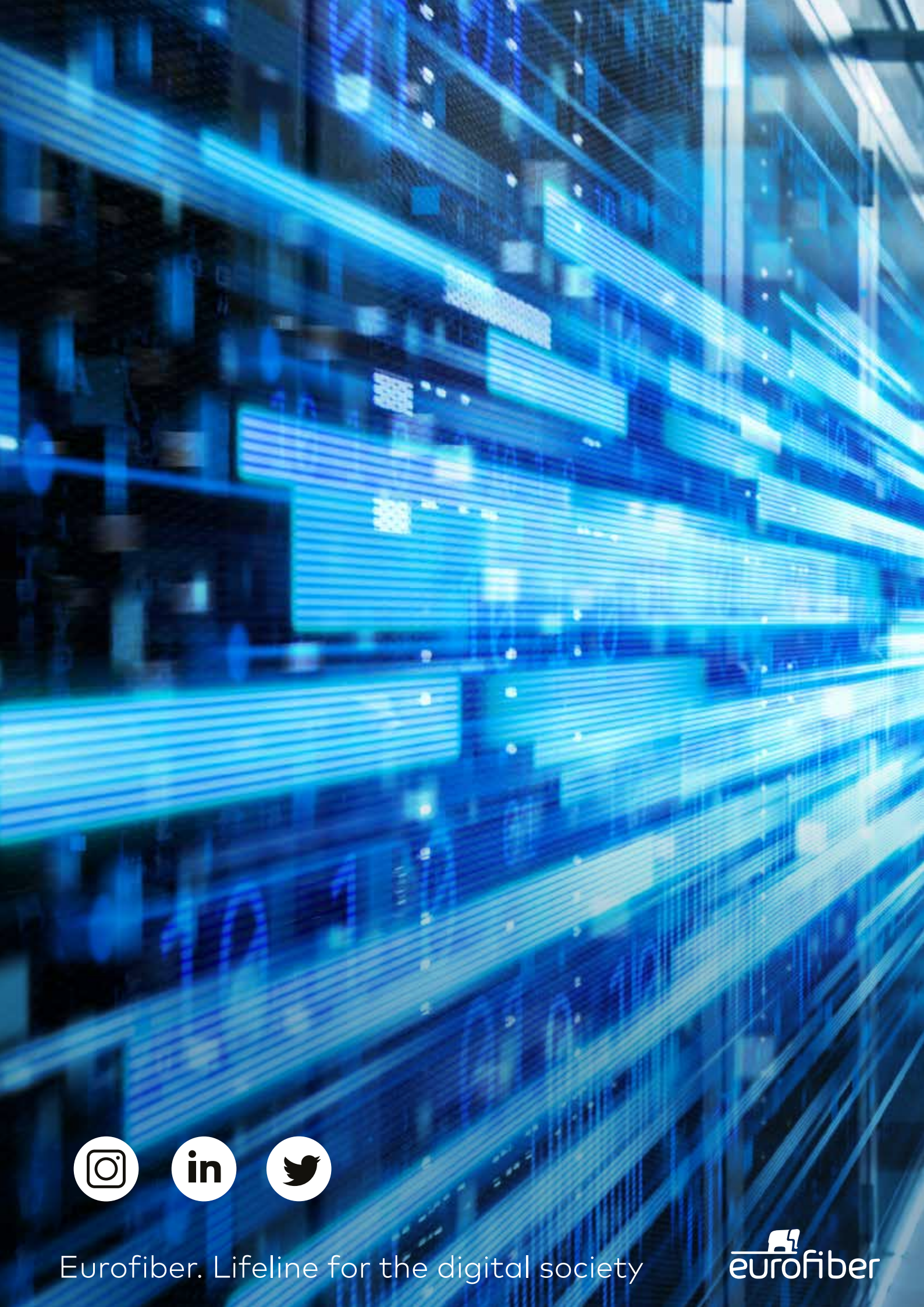
Driving the sharing economy

Self-driving vehicles can also act as a catalyst for the 'sharing economy', adds Storm. 'At the moment, cars are capital-intensive products which are inefficiently used, i.e. just a few times a day, such as for commuting to and from work. Applying the principles of the sharing economy to self-driving cars enables us to make far better use of existing resources, with one car potentially serving two people at a minimum. That way we can halve the number of vehicles on the road in due course. The younger generation is already warming to this idea: for them the car is rapidly losing its status as a sacred cow.

As the automotive sector struggles with this concept, non-traditional parties in particular are moving into the space vacated by them, led by relative newcomers such as Tesla or Dutch firm Lightyear.- They plan to manufacture a long-range solar electric vehicle. Car manufacturers and dealerships are not the only ones facing serious consequences. Local authorities and central government also expect to be impacted, through lost parking revenues and decreased income from road tax, for instance.'

Consequences for connectivity

Longer-term trends, such as fully autonomous vehicles, are generally not high on the list of priorities for consideration by too many organisations. 'That said, whenever we explain the issues involved to our customers, they quickly become aware of what is potentially at stake. In particular in terms of the impact this will have on their organisation and customers. The organisations affected range from central and local authorities to insurance companies and from large hospitals to body repair workshops. Eurofiber's infrastructure is often used as a basis for developing these types of innovation, and contracts for up to fifteen years are by no means unusual. In this light, such trends are important to take into consideration when making future plans. This also applies to the connectivity requirements involved with self-driving cars, for instance. A single autonomous vehicle generates between roughly 4 and 30 Terabytes per day. Much of the data is transported over mobile networks and the fixed fiber-optic network infrastructure to datacenters, such as those operated by the government, where they are used to conduct real-time analysis of traffic flows, thereby enabling appropriate action to be taken. Transporting such a vast amount of data from A to B requires a stable, secure and future-proof network infrastructure, such as optical fiber, which also provides the necessary flexibility. Our customers are increasingly taking this into consideration when mapping out their strategic future plans. Rightly so: I can imagine my grandchildren asking me less than twenty years from now whether it wasn't incredibly dangerous in the past when people still needed a driving licence and actually drove the car themselves.'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