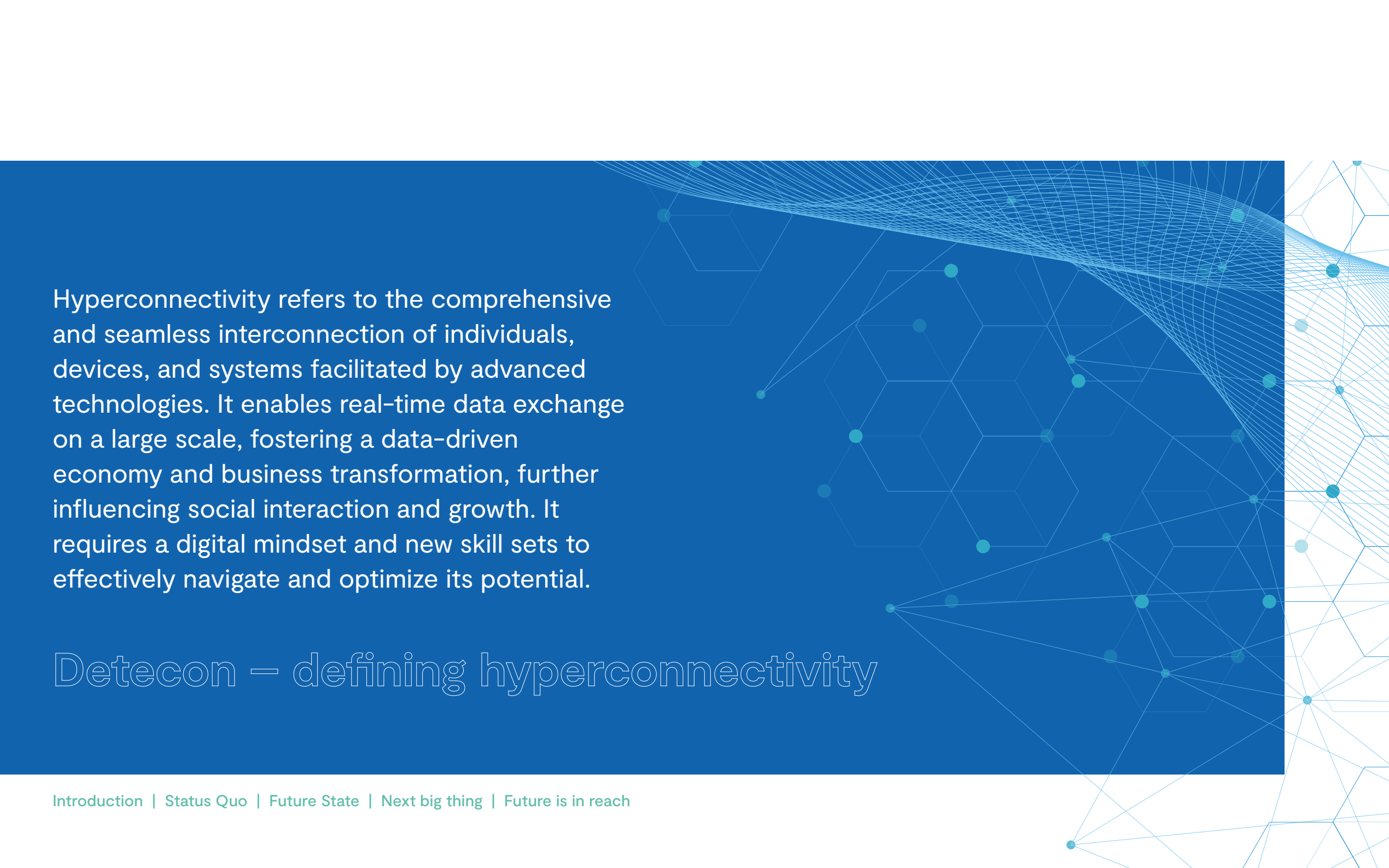




Beyond connectivity:
Your endless opportunities
in a hyperconnected world.





Hyperconnectivity refers to the comprehensive and seamless interconnection of individuals, devices, and systems facilitated by advanced technologies. It enables real-time data exchange on a large scale, fostering a data-driven economy and business transformation, further influencing social interaction and growth. It requires a digital mindset and new skill sets to effectively navigate and optimize its potential.

Detecon – defining hyperconnectivity

From Berlin to Paris, from connectivity to hyperconnectivity

In 2020, eight billion devices worldwide were digitally connected. In 2030, this number will rise to approximately 50 billion, according to the German Federal Ministry for Education and Research. Ten years to increase sixfold, and an estimate that doesn't even sense the side-effects that come with the numbers for both society and economy yet.

A map and a bit of imagination help to get a glimpse of what's ahead on the road from connectivity to hyperconnectivity: Imagine you're going from Berlin to Paris, by car, highways only, and let's assume side roads simply don't exist, i.e., no opportunity for you to exit even if the region you're passing seems to be nice for a stop-over.

Your arrival at your destination will certainly be breathtaking. Paris, what a lovely place to see let alone the many things to do. It's an unforgettable user experience, so to speak, if you consider Paris the device you are now connected with, dear



“Hyperconnectivity translates to endless opportunities and services. We haven't entered this world yet, but everyone can feel already what it's like when hyperconnectivity is taken away from you by simply trying to enter post-Brexit Great Britain.”

Andrea Schmitz, Managing Partner DETECON

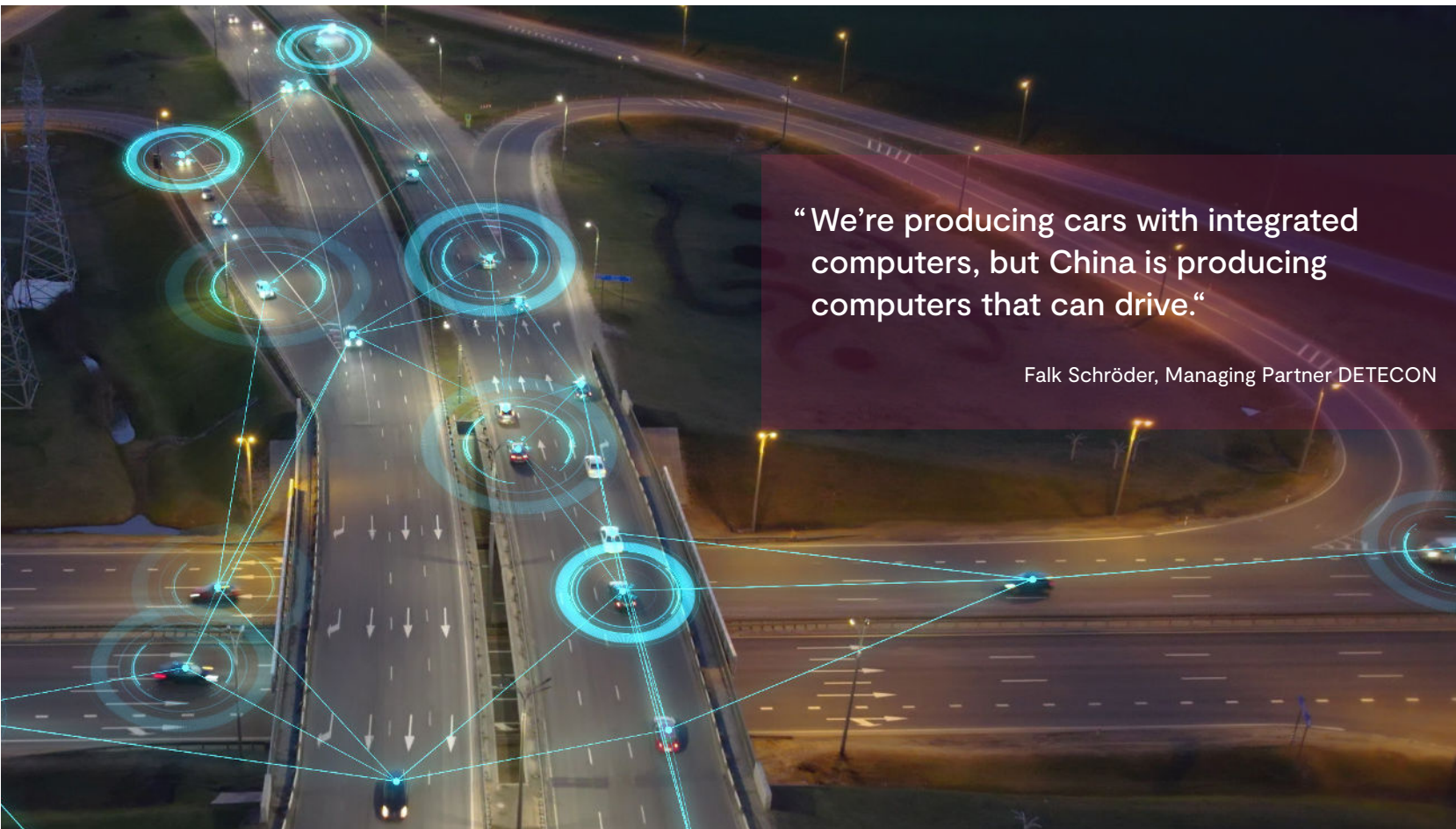
traveller from Berlin. But it's limited to Paris, and even Paris can't make up for the amount of love that you missed on the hundreds of kilometers of nothing but tar and cars and trucks.

So, what's hyperconnectivity instead?

It's the opportunity to stop by whenever you feel like it as the cities and regions in between are connected as well, the many “devices” that offer additional experiences along the way. It's taking a break at the mid-German vineyards before you enjoy French cuisine. It's the spontaneous visit to

Belgium, serving your kids the world's best waffles. And it's entering France without border control since the Schengen Agreement provides you with seamless access to a whole new ecosystem.

Surely, the number of devices itself will rise as well. However, don't forget that many of these 50 billion ones are available already, just not connected to the outside yet. What world would it be if we imagine the endless opportunities for people and businesses that come with building a neural network connecting everyone and everything?



“We’re producing cars with integrated computers, but China is producing computers that can drive.”

Falk Schröder, Managing Partner DETECON

like so many other improvements in consumer life. It’s enough to satisfy our enthusiasm and curiosity today since the momentum of such things being new is still there – and that precisely is what may trick us into missing the quantum leap to the future.

Of course, things become much more complicated when we go from end-consumer services and digital products to the companies providing these offerings. Businesses today rarely leverage 5G or even 6G networks that provide the basis for connecting all aspects of their operations in one single system. At the end, they stumble into the same pitfall as consumers: Technology today still offers abundant opportunities to run a successful business, however, the end of opportunities is in sight already.

We’re living in a world of superb one-off business models that respond to unique needs, all co-existing without major interference, but there’s little to no intelligence behind analyzing these needs on a higher level. We lack the one thing bringing together all customer requirements in ecosystems based on 360° insight and shaping new experiences with interconnected devices that deliver effectiveness and efficiency beyond imagination.

”By the time you reach the end of your enthusiasm about connectivity, you may have missed access to hyperconnectivity already.“

Andrea Schmitz, Managing Partner DETECON

Status quo

Connectivity is evolutionary, not revolutionary

Today, we have not yet fully exhausted technological possibilities. We have learned to digitize end-consumer

services such as enjoying our favourite music: No more fumbling with records – unless you’re an enthusiast – but simply connecting your mobile device to your Bluetooth speakers, hitting play in your digital database and then let’s rock. When we all got rid of our CDs not long ago, this surely felt like a revolution, however, it’s not: it’s nothing but an evolutionary step

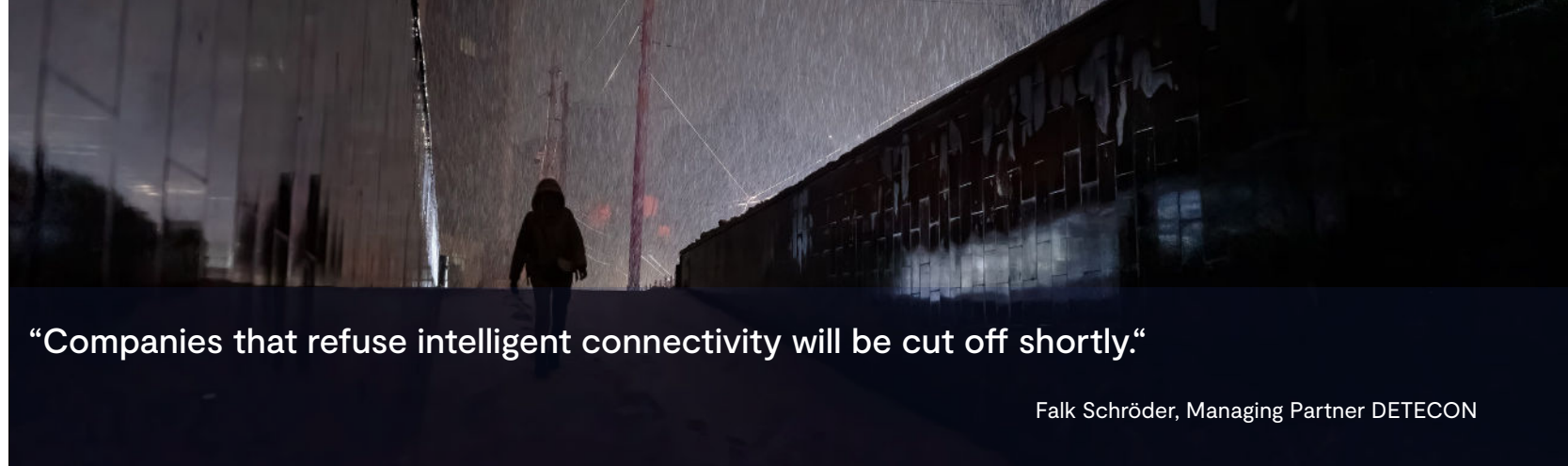
Future state

Beyond connectivity

Moving to the cloud and leveraging the Internet of Things (IoT) surely are must-dos for any business that wishes to be relevant tomorrow. Taking a closer look, however, reveals that these are the very last steps within the evolution of technology that still run on the concept of connectivity. We've made our way from offline working with faxes via digital communications such as e-mail and digital applications such as surveillance to these digital systems, but this is where development has reached the end of its potential as far as connectivity goes.

So, what's the next big thing?

Hyperconnected ecosystems are on the horizon already which is all about seamless sharing of data between interconnected devices and systems, ultimately enabling real-time collaboration and optimization across industries. This is when new business models come up that leverage data sharing and apply new modes of collaboration. One everyday example? When taxi service providers no longer leverage comparably simple digital opportunities only such as integrating weather forecasts into their capacity planning, but opt for hyperconnectivity instead.



“Companies that refuse intelligent connectivity will be cut off shortly.”

Falk Schröder, Managing Partner DETECON

What's new about that? This is when your taxi app not only calls a cab, but provides clear indication on the best mobility options to reach your target destination. The enabling factor is that the ecosystem involves all vehicles and surrounding information influencing your journey: cabs, electric scooters, and rental bikes, but also the weather forecast and so on, so when the rain kicks in when you're late for your board meeting plus stuck in a traffic jam, a rickshaw driver with a rain cover for the passenger seat may take you via bike lanes to your destination – dry and in time.

“Technology requesting support – that's going to have a huge impact on how society works and will lead to a paradigm shift in our understanding of technology being a door opener for the next stage of human interaction.”

Andrea Schmitz, Managing Partner DETECON

“Future networks will no longer provide capacity without knowing the need, but vice versa: Devices will request their needs, i.e., connected cars stuck in traffic jams will automatically request to open up an extra lane on the highway.”

Falk Schröder, Managing Partner DETECON

But still, hyperconnection remains limited to those ecosystems that are required to deliver a certain service. The hyperconnected world, however, is in reach already, in which the integration of advanced technologies such as AI, the IoT, and automation, allow for real-time data analysis and decision-making, optimized processes, enhanced productivity, and personalized experiences for individuals and businesses.

Here, the boundaries between ecosystems vanish, and all ecosystems access the same data lakes. What was limited to travel services in the hyperconnected ecosystem mode will progress to limitless opportunities for all societal partakers. For example, this is when city councils join the travel services industry and react to immediate needs on their roads – rather than leaving it to the services to find the best possible option within a limited frame such as the streets that are currently available. In short: In the hyperconnected world, there's an extra lane on the inner city highway opening up automatically to handle the unexpected amount of cab riders because of that rain.

All of this will affect business, society, infrastructure, and technology. The good news is: some companies have embarked on this journey already. They apply campus networks on their locations and allow for all devices in place to connect in neural networks. The further implementation goes, the better processes can be automated – with outcomes on a quality level that is far beyond today's reach.

This is the time when devices advise on their needs, and networks must respond, not vice versa, as physical hyperconnection allows for them to communicate among each other and e.g., allocate network capacities. Once in place, companies do not have to worry any longer if their systems are able to manage a given workload at a given time since hyperconnected devices plus AI will soon take care of this.

Business and society are only at the beginning to grasp the opportunities that come with the hyperconnected world. It will redefine the rules how the world works, and companies better start to fulfill the preconditions to be part of this development – and not be disconnected.

“Hyperconnectivity doesn't translate to 6G, but 6G networks will provide a level of maturity that allow for the potential of hyperconnectivity to unfold.”

Vit Soupal, Senior Manager DETECON

This future is in reach: By 2026 at the latest, companies must have their concept in place on how they obtain their ticket to the hyperconnected world. This is when pre-defined solutions will be available and anyone can easily adopt modular systems that fill the gap between connectivity and hyperconnectivity.

By 2030, the development will have reached end consumers. This is when individuals make personal choices about who they buy products from – whether it's still the digital database that continues to nicely play my favorite music or whether it's the one label that has connected my taste of music to my travel itinerary, telling me which café to go to for a café au lait experience in Paris that is beyond merely sipping coffee after my long way from Berlin.

“We are currently experiencing a revolutionary change in technology, society and business – hyperconnectivity. When the world is hyperconnected, the business paradigm changes fundamentally.”

Vit Soupal, Senior Manager DETECON

DETECON
CONSULTING

How we support you

At DETECON, we're passionate about the opportunities that come with the hyperconnected world. We help you build the right networks to manage the quantum leap and delve into defining new business models together with you. Find out more about our services [here](#).

